



Application Setup and Maintenance Manual



Spillman® Public Safety Software

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Preface

Using this manual

Welcome to the *Application Setup and Maintenance Manual*.

The *Application Setup and Maintenance Manual* is written to help your agency successfully set up and maintain the Spillman™ Public Safety Software. It is designed to guide Spillman Application Administrators (SAAs) through the various Spillman administration tasks. Where possible, it provides step-by-step instructions.

In addition to instructions for general setup and security, this manual contains setup and security instructions for the following modules:

- CAD
- Civil Process
- Commissary Management
- E-911 CAD
- EMS Records Management
- Equipment Maintenance
- Evidence Management
- Fire Records Management
- Fleet Maintenance
- Hub
- Inventory Management
- Jail Management
- Law Enforcement Records Management
- Licenses and Permits
- Powned Property
- Personnel Management
- Premises Information
- Schedule Management
- Traffic Information
- Vehicle Impound

Other manuals to have at hand

This manual often directs you to other information sources. Keep the following manuals available for reference as needed.

Refer to	For
The manual(s) supplied with the individual product	Administration information on any module not covered in this manual
Your hardware manual (supplied by Spillman or your alternative hardware vendor)	Information on your terminals or PCs, printers, and other equipment

Refer to	For
Your operating system manual	Information on operating system tasks, such as setting system logins, checking remaining disk space, and resetting the system's time and date
Security Setup and Maintenance	Administration information on setting up security for the Spillman software
Code Table Setup and Maintenance	Administration information on code tables
Online Help	Information on: <ul style="list-style-type: none"> the basic elements of the Spillman system—including details about commands, options, and common procedures for using modules the Hub module (Names, Vehicle, Property, Wanted Persons, On-Call Scheduling, Resource, Demographic Summary, and Dissemination tables)

Conventions

As you use this manual, note the following conventions.

Convention	Meaning/Use	Examples
bold	Used for names of options, text boxes, buttons, fields, and other items that appear on the screen.	OK is a button on the screen. Click OK , or press Enter.
angle bracket (>) between items	Shows the menu option(s) that must be selected, in sequence, to get to a specific option.	From the Start menu, select All Programs > Spillman > Spillman Mobile .
plus sign (+) between keys	Used for keys that are pressed at the same time. Hold down the first key, and then press the other key(s). When a keystroke is available for a mouse action, both the mouse action and the keystroke are presented.	Press Ctrl+E. Click Close , or press Ctrl+F4.
comma (,) between keys	Used for keys that are pressed in sequence. Press and release each key, in the order shown.	Press Alt, F, O to open the File Options dialog box.
Courier font	Used for displayed text. Used for Spillman table names.	The software prompts: Are you sure you want to delete this record? Open the Spillman Names table (nmmain).

Convention	Meaning/Use	Examples
bold Courier font	Used for information you enter.	Enter the street address, such as 401 W Sycamore St.
<i>italics</i>	Used for emphasis. Used for variable information you supply.	Enter the date, using the <i>mm/dd/yyyy</i> format.

The following boxes signify special information.

NOTE

Notes call attention to information that is of particular importance or that varies depending on a particular condition, such as the way your Spillman Application Administrator has configured the software.

TIP

Tips present recommendations, optional actions, and additional ways to perform specific tasks.

CAUTION

Cautions point out actions that might endanger your data or its integrity (usefulness) or cause other problems later.

Features on your computer depend on your software version, modules, and privileges. Actual screens on your computer might vary from the example screens shown in this manual. However, any differences are minor and do not affect the tasks being described.

To find more manuals, visit [MySpillman](#) or the [Spillman Knowledgebase](#).

Chapter 1

Overview of Administration Tasks

Your Responsibilities as SAA 24

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Your Responsibilities as SAA

As your agency's SAA, you are responsible for implementing and maintaining the Flex software and training agency personnel on its use.

To fulfill these duties, you must be able to:

- Commit to making the software work.
- Organize information and tasks effectively.
- Make decisions that affect your entire agency.
- Communicate clearly with your users, any co-administrators and assistants, Spillman Technologies, and other vendors. To enable our company to best serve your needs, you will be your agency's primary communication link with us. Please, relay any problems you have with the software to Spillman Technical Services. You must also be able to work with hardware personnel to resolve any Spillman-related hardware issues.
- Research and solve problems calmly. By having a calm, positive attitude, you will solve problems more quickly and will foster a similar attitude among your co-workers.

The first several months of implementation and system use will require your complete attention. You will work closely with your Project Manager, Spillman Installation, and Spillman Training to set up the software, learn it, and train others in its use. Because the software performs sophisticated work, some complexity in the user interface is unavoidable. Spillman Technologies recommends that you become proficient in its use without delay so that you can better train the rest of your agency.

Overview of Tasks

This section outlines your responsibilities as your agency's SAA. It groups your tasks into the following categories:

- Application implementation tasks.
- Application maintenance tasks.
- Tasks performed outside the software that must be completed for the software to function properly.
- Requirements that you and your agency must meet to qualify for support from Spillman Technologies.

Application implementation tasks

The following sections introduce the tasks you must perform to get the software up and running, first with practice data (which is copied into a Practice database for you) and then with your own data (which you and other agency employees enter into your agency's Live database). You can vary the order of some tasks and work on some simultaneously as needed. Detailed instructions are provided in Chapters 2–5.

The tasks are:

1. Read chapters 1–5 in this manual.
2. Attend the pre-implementation meeting with your Project Manager, and create an implementation schedule for your agency, covering the next 12 to 14 weeks.

At the meeting, tell your Project Manager the number of people who will attend each training session. Later, you will set up a training room with a maximum of nine PCs to accommodate 16 users and the Spillman trainer.

For more information on the pre-implementation meeting, [see “Attending the Pre-Implementation Meeting” on page 41](#). For a list of initial classes and recommendations on scheduling training, [see “Scheduling Training” on page 42](#).

3. If necessary, announce a date for changeover to the software.
4. After reviewing and approving the training schedule provided by your Project Manager, prepare users for training:
 - Post the training schedule at your agency.
 - Adjust shifts as necessary to accommodate training.

Establish data entry and data search standards

5. Decide on your agency's data entry and data search standards, and distribute copies of the standards to all users.

NOTE

For data searches to be successful, all users in your agency must enter information and report incidents consistently. Therefore, you must decide:

1. How names are capitalized
2. Whether punctuation is omitted
3. Which abbreviations are allowed

The "rules" you choose are your data entry standards.

You must also establish agency standards for *searching* data, although you can wait until after training to do this task. Proper searching methods ensure that users retrieve all related records even if a record is entered under a different form or spelling. For example, Judith instead of Judy or Andersen instead of Anderson. See ["Defining Standards for Searching and Entering Data" on page 44.](#)

Analyze agency's information-handling needs and collect data

6. Analyze your information-handling needs, and collect information for later entry into the software database.
 - Analyze your agency's current flow of information to determine the changes necessary for implementing the computer system.
 - Write down all the information that you will need to enter when setting up the software. (Include employee names, badge numbers, Social Security Numbers, unit designators, and any other information your agency uses. Include everyone that the system must recognize, including contacts at other agencies.) During SAA training, you will use the information to begin entering users into the software. Write the information in the format dictated by your data standards.

For more information, see ["Analyzing Information Flow and Collecting Data" on page 57.](#)

Write down codes you need

7. Based on your information-handling needs, determine which software codes you need to add or change. Write down the codes that your agency will require.

TIP

Certain fields in the software (for example, the Make field in the Vehicle table) do not allow the user to enter free text. Instead, these fields accept only certain codes (such as the code VOLK for Volkswagen). The user can either enter the appropriate code or display a list of codes that are valid for that field and select from the list. Coded fields ensure fast and valid data entry, easy categorizing of data, and powerful data searches and reports.

To determine which codes you need to add or change, review the common code tables (the code tables that are used by numerous modules) and the code tables used by each module your agency purchased. For listings of common and module-specific codes, see the *Code Table Setup and Maintenance Manual*.

NOTE

The code table is the table that defines the valid codes for a particular field. The table contains one record for each code. The software comes with some code tables already loaded. Your agency will use these preloaded code tables during training. In your Basic Application Administration training, you will learn to modify code tables. If time permits, a trainer can help you begin entering your own codes into your Live system.

Install network, hardware, and operating system

8. Install your network cabling, hardware, operating system, and any necessary file transfer programs.

Consider carefully the placement of your server, your wiring locations, your initial and future training needs, and potential growth. For more information, see [“Installing the Network, Hardware, and Operating System” on page 59](#) and [“Setting Up the Training Room” on page 63](#).

9. Configure the operating system on your server. Refer to your operating system documentation for instructions.
10. Follow your hardware documentation to set up your PCs.
11. When finished setting up the hardware and operating system, contact Spillman Technologies to install the software, either from the Spillman Technologies offices or at the agency as determined by the agency contract.

Contact Spillman for software installation

Practice user tasks on tutorial database

12. Once the software is installed, you and other users can learn basic software functions on the tutorial database by following step-by-step instructions in the *General Tutorial*. You do not need to wait until training. Use the login and password found in the *General Tutorial*.

Ensure that you have enough space to run as many tutorials as necessary at the same time. Monitor the free disk space where the database is located. For more information, see [“Using the Practice Database” on page 67](#).

Ensure access

13. If you have privileges, you can use Admin Mode to customize fields on screens. You can change a field label, hide a field, make a field required, or make the value uppercase.

NOTE

Super User (SU) privileges are different than Admin Mode privileges, in that a person with SU privileges has access to all screens and partitions system wide and can do more than a person with only Admin Mode privileges. If a user has only Admin Mode privileges, the user can do those things listed on this reference card for only those screens for which they have Admin Mode. For those screens specified, Admin Mode allows you to view all partitions as well. For more information on working with Admin Mode see [“Admin Mode” on page 91](#).

Practice administration tasks on Practice database

14. Before setting up the software on the Live database, you can practice the setup tasks on the Practice database. Some tasks you might practice are:

- Setting up access privileges for group logins and personal logins. See the *Security Setup and Maintenance Manual*.
- Setting up spoolers, editors, and e-mail. See [Chapter 3, “General Setup,” which begins on page 75](#).

After training, users can practice their new skills on the Practice database.

NOTE

Information in the Practice database is erased each time the `cleanprac` program is run.

Set up training room

15. If you did not set up the training room while setting up the hardware, do this task now. See [“Setting Up the Training Room” on page 63](#).

**Set up software
and back up the
system**

16. After the software is installed, set up the software on the Live database.
 - If you have not done so, set up UNIX logins for yourself, other users, and user groups. Then, grant specific logins access to specific tables, menus, and programs as needed so that users can do their jobs. Also set up agency and non-agency partitioning in the System Privileges table (`sypriv`) as needed. See the *Security Setup and Maintenance Manual*.
 - Input into the appropriate code tables the codes you wrote down earlier.
 - Modify, as necessary, the application parameters in the Application Parameters table (`apparam`).

NOTE

The Application Parameters table (`apparam`) lets you provide the software with instructions and data that apply throughout the system. For example, the `adultage` parameter in the `apparam` table lets you specify the age at which a person is considered an adult in your state. The `areacode` parameter sets the default area code. The `Killtime` parameter supplies an instruction instead of data. It tells the software how many minutes of inactivity to allow before automatically logging off a user.

In addition to several general application parameters, you must set up specific application parameters for each of your modules. Your Basic Application Administration training teaches you how to go into the `apparam` table and change the value of an application parameter. Also refer to [“Setting Up Application Parameters Common to All Modules” on page 112](#) and [Chapter 4, “Module Setup,” which begins on page 181](#).

- Modify the settings in the Administration Manager as necessary.

NOTE

In Flex, you have the choice of using the Classic administration screens or the Administration Manager. To access the Administration Manager, use either of the following methods:

- Select **Administration > Administration Manager** from the menu bar on any screen.
- Enter `adminutil` at the command line.

Also refer to [Chapter 3, “General Setup,” which begins on page 75](#).

- View the Online Help.

TIP

By pressing the Help function key (Ctrl+W), users can learn how to enter data in various types of fields and how to use menus, function keys, toolbar, buttons, and CAD commands. The help screen for a field usually includes the name, type, and length of the field.

You can add or change information on help screens to reflect your agency's policies and procedures. Each time the software is upgraded, you must redo the screens because the existing screens are overwritten by screens from the new release. See ["Changing a Help Screen" on page 275](#).

- Change or add environment variables as needed.

NOTE

Several variables are set up in the startup script file during installation. Change and add variables in the script as needed, or contact Spillman Technical Services for help. For more information, see [Chapter 3, "General Setup," which begins on page 75](#).

- Set up application cue cards (text field outlines).

TIP

In many places in the software, users can enter free text. To help standardize text entry and ensure that users do not leave out vital data items, the software lets you set up application cue cards, also called text field outlines or templates. Once you set up cue card(s) for a field, a user can display a list of available cue cards by pressing the Lookup button in that field. The software comes with a set of application cue cards, which you can modify or add to as desired.

- If your agency will use more than one printer with the software, you must define the printers to the software. Defining the printers creates a printer list that users can choose from when they print reports. For instructions, See ["Defining Printers" on page 327](#).
- Follow instructions in your manuals to set up additional interfaces and Spillman modules your agency has purchased.
 - For example, if you purchased the Hazardous Materials database, be sure that a Spillman installer installed the database for you. Once installed, the Hazardous Materials database is ready to use. You do not need to set it up in any way.

- If you purchased E-911, be sure that a Spillman Installer installed and set it up for you. Set up your CAD module as described in [Chapter 5, “CAD Module Setup,” which begins on page 191](#), and set up E-911 as described in [“E9-1-1 CAD setup” on page 187](#).
 - If you purchased the Geobase module, building the geobase will probably be your longest implementation task. Because of the length of the task, most agencies go on line with the rest of the software before completing geobase implementation. See your Geobase manual and [“Setting up the geobase” on page 107](#) for instructions.
 - (Optional) Change the abbreviations or the priorities of involvement types. Involvement priority determines the order in which involvements appear on the Involvements screen. You can do this only during setup. You can change the abbreviations and the sort order in the Involvement Types table (syinvtyp). However, if you want to change the sort order, call Spillman Technical Services before entering any data that will create an involvement. For more information, see [“Changing Priority or Abbreviations of Involvement Types” on page 318](#).
 - (Optional) For any table whose records are assigned numbers by the software, you can change the format of the record numbers. For possible formats and instructions, see [“Changing the record number format for a table” on page 310](#).
17. After each setup task is complete, back up your system. See [Chapter 9, “Installing, Configuring, and Maintaining Flex on a Client Computer,” which begins on page 201](#).

Print out blank screens

18. Before entering data, print out key screens while they are blank. You can use photocopies of these screens to temporarily record data if the system goes down. For a list of key screens and instructions for printing them, see [“Printing Blank Screens” on page 69](#).

Enter data and back up the system

19. Enter into the system all information that your agency requires for implementation. Among other information, this can include:
- Active warrants
 - Current inmates
 - Cash accounts for current inmates
 - Scheduled events for jail
 - Work release data

- Outstanding civil processes

Data entry might take several days. For more information, see [“Entering Data” on page 70](#).

20. Back up your system to protect the data entered.

Set up system for entering reports

21. Set up a system for field officers to follow when entering a report. See [“Setting Up a System for Entering Reports” on page 72](#).

Complete training

22. Complete training as scheduled. Make sure that anyone who missed the initial training has received training since then and that everyone is now well-versed in the use of the software.

Change over to the Spillman software

23. After you completely set up the software (including security privileges) and everyone is thoroughly trained, you can make the final switch to the software.

The best time to switch is at the beginning of a month, at 1 minute past midnight. Any support that Spillman Technologies provides outside regularly scheduled support hours is subject to after-hours charges. You might prefer to wait until regular support hours.

If you have been using other public safety software, remind users that some historical records may exist only in the old database.

Application maintenance tasks

If your agency is small and has only a few modules, maintenance of the software might not take as much time as implementation. However, it probably still will be a full-time job. Some SAAs even require an assistant.

Maintenance tasks fall into the following major categories:

- Protection of software and data
- Software maintenance
- Data auditing
- Software troubleshooting

Individual tasks are summarized in the following section.

Tasks for protection of software and data

The following tasks are vital to protecting your software and data:

- Back up your system regularly, check backups to be sure that they are good, and store backups in a secure location (preferably off site). See [Chapter 10, “Backups,” which begins on page 227](#).
- Upon any employee’s termination or retirement, immediately retire that user’s name from the software. To do this, see [“Adding and Retiring Users” on page 330](#).
- Keep UNIX and user groups, privileges, and the script current to meet agency needs.
- Protect Super User and “root” access.

Maintenance tasks

In addition to updating your software to recognize new users and equipment, keep it current for your agency’s needs. Refer to [Chapter 11, “Spillman Maintenance,” which begins on page 249](#), to perform these tasks:

- Maintain any customized help screens.
- Maintain menus as needed for your agency, using the `syppgm` table.
- Maintain application cue cards.
- Maintain code tables according to agency specifications and program requirements.
- Maintain geobase information.
- Maintain the Practice database and the Tutorial database.
- Rebuild tables damaged by the computer being shut down abnormally.
- Identify new printers and PCs to the software.
- (Optional) If any modules you add have tables that number records, change the format of the record numbers to suit your agency’s needs.
- Update custom changes after upgrading.
- Implement a continuing plan to train new employees, refresh training of present employees who need greater skill, and train one or more assistant SAAs. Also, attend hardware training offered by the vendors of your agency’s hardware.
- Repair the CAD module’s Active Calls table (`syccad`) and Unit Status (`syunit`) table if users receive error messages that indicate repair is required.

Data auditing tasks

Chapter 12, “Data Auditing,” which begins on page 337, describes ways to keep your database clean:

- Check disk space regularly.
- (Optional) Remove data from database.
- (Optional) Purge radio log entries.
- Find and eliminate duplicate records in the Names table.
- (Optional) Print and delete expired warrants.
- Use the master log to see which errors occur most often, and implement procedures to prevent them.
- View modification history of records to learn the following information: which records were added/modified during a certain time range, which records were added/modified by a certain user, and who last modified a certain record.
- Audit report data to see that reports are showing the information that you want.

Software troubleshooting tasks

Chapter 13, “Support and Troubleshooting,” which begins on page 371, describes steps to take to prevent and solve problems with the software:

- Prevent problems by keeping users aware of events affecting the software and policies concerning its use.
- Maintain a system log that documents backups performed, changes in configuration, software installed, hardware installed, and so on. Also maintain a problem log, detailing all problems and their solutions.
- Diagnose and solve problems.

Before reporting a problem to Technical Services, attempt to solve it yourself by using the Online Help and troubleshooting guidelines provided by Spillman Technologies and your hardware vendor.

- Duplicate problems.

When unable to solve a problem, try to give Spillman Technical Services enough information to recreate the problem. Often, Spillman Technologies personnel must see the problem to analyze and fix it.

- Fix printing problems.

Required tasks outside of Flex

In addition to tasks within the software, there are tasks outside Flex that affect your agency's ability to use the software effectively. Sometimes, these tasks are performed by other administrators. Depending on the size of your agency, however, you may be asked to take on some of these duties. It is a good idea to be familiar with them.

Systems administration tasks

- Monitor operations of the computer, ensuring that the operating system performs, at peak efficiency, the functions for which it was designed.
- Know the capabilities of the operating system and understand how the operating system interacts with other applications software, including special device drivers.
- Set user access standards and ensure the security of the UNIX system. This task involves: adding, modifying, and deleting UNIX users and groups; configuring login parameters; and tailoring users' login scripts.
- Configure hardware ports to communicate properly with PCs and printers. See the operating system documentation.
- Configure print spoolers. Most printing from the software is done through print spoolers.
- Configure e-mail. Flex interfaces directly with UNIX mail, enabling any user on the software to communicate with any other user, a group of users, or all users. You should be familiar with this powerful UNIX feature.

Network administration tasks

- Implement and maintain the network hardware and software to the computer. Hardware includes PCs, printers, modems and other network devices used by remote sites for accessing the system.
- Maintain a list of hardware configurations including:
 - The IP address of each hardware item
 - Your printer connections (which printers are connected to which tty ports)
 - Your means of Support connectivity
 - Each PC's configuration and setup
 - Each printer's configuration
 - Any special hardware setups

- Plan for future hardware needs. Before your agency buys hardware that is to be used with the software, consult Spillman Technical Services to ensure that the hardware is on the list of approved hardware. Learn to identify hardware needs and order, receive, and test hardware.
- Implement and maintain any Local or Wide Area Network that your agency uses for the software.

Operations management tasks

- Implement and maintain interfaces that access state, national, or local networks.
- Maintain your hardware as outlined in your hardware documentation. For example, clean your tape drives regularly and keep the computer room free of dust and at the appropriate temperature. Properly cared for hardware is vital to reducing the number of failures and limiting down time.

Requirements for support from Spillman Technologies

If your agency has just purchased the software, you are required to meet with your Project Manager at a pre-implementation meeting. See [“Attending the Pre-Implementation Meeting” on page 41](#).

Also, make sure that your agency has identified you and any co-administrators and assistants to Spillman Technologies. You must be listed on Appendix A of the Computer Software Support Agreement. Any problems that are reported by persons **not** identified in the Software Support Agreement are subject to an hourly charge and are not subject to any agreements on response times. The hourly charge is based on the current bill rate for the support maintenance level chosen by your agency.

Complete the following certification training:

- UNIX Fundamentals (Spillman course or equivalent UNIX course)
- Basic Spillman Application Administration (Spillman course)
- Inquiry (Spillman course)
- Data Entry & Modification (Spillman course)

Technical support supplied to persons who are **not** properly trained will also be subject to additional fees and is not subject to any agreements on response times.

If your agency changes SAAs, you must inform Spillman Technologies of the change. The new SAA must meet the same requirements as the original SAA.

Chapter 2

Implementation Tasks

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Introduction

Implementation of the software consists of the following tasks. Spillman Implementation personnel will install the software. All other tasks are your responsibility. You may have several tasks going on at the same time. This chapter provides details about these tasks.

1. Attend the pre-implementation meeting.
2. Schedule training.
3. Define your agency's standards for searching and entering data.
4. Analyze your agency's information flow, collect the data necessary for implementation, and write down any codes you need to change.
5. Install the network, all hardware, and the operating system.
6. Set up the training room, and attend training.
7. Contact Spillman Technologies to have the software installed.
8. Use the Tutorial database for self-training.
9. Use the Practice database to practice skills learned in training.

NOTE

The Practice database is a good place to practice setting up security privileges before setting them up for the Live database. This chapter provides information on setting up your own logins. The *Security Setup and Maintenance Manual* provides information on setting up software access for other users and user groups.

10. Set up the software and customize it to your agency's needs.
11. Set up security of the software.
12. Print copies of critical tables before entering data in them.
13. Enter data into the Live database.
14. Set up a system for field officers to use to enter reports.
15. Change over to the software.

This chapter provides details about these tasks.

Attending the Pre-Implementation Meeting

Your Project Manager, whose job is to assist your agency with implementation, will schedule a meeting to take place prior to implementation. All implementation tasks will be discussed at this meeting.

You, your assistants, and your supervisor should attend, along with any other agency personnel who are expected to play a key role in implementation.

The purposes of the pre-implementation meeting are:

- To acquaint you with the Project Manager, your main point of contact with Spillman Technologies during implementation.
- To discuss the specific tasks required to achieve a successful implementation.
- To create an implementation timeline, which will include scheduling resources and personnel in a coordinated manner.
- To formally announce a date or dates for changeover to the Flex software. (You do not need to go on-line with all modules on the same date.)

Making a formal announcement within your agency helps prepare personnel for the coming changes in their jobs. The better prepared they are, the more likely they are to be accepting of the new software.

Scheduling Training

Spillman Technologies provides formal training on using and administering the software. The initial training is vital in creating qualified users. It includes classroom instruction, class discussion, practical exercises, written examinations, and practical exams on the PCs.

The following table lists the initial training courses.

Course	Required for
UNIX Operating System Fundamentals	SAA
Basic Application Administration	SAA and all assistants
Inquiry Introduction	SAA and all users
Data Entry	SAA and all users

When you purchase training courses from Spillman Technologies, instructors come to your agency and train up to 16 persons in each class (eight persons for CAD) in facilities you provide. Additional users can attend if the training instructor approves their attendance beforehand.

If you have significant training needs, you can designate one or more persons as software trainers. Your agency can purchase training plans, exercises, and examinations for the modules currently in use (the same materials used by Spillman instructors). Your trainers can take Teaching the Spillman System, a course taught by qualified and experienced instructors from Spillman Technologies. This course is open to six to eight users at the same time. It cannot be taught for fewer than six users.

Spillman trainers will conduct training for up to 12 hours per day and on weekends if necessary to bring the software on line sooner. However, please consider the following when scheduling training:

- The Spillman Public Safety System introduction courses are prerequisites for all other courses. The introduction courses are:
 - System Inquiry and Reports
 - Data Entry Introduction
- Some courses have additional prerequisites. Prerequisite courses must be completed first.
- To assist users with questions and problems on all modules, you must understand the software completely. Schedule yourself for as many courses as possible.
- If possible, schedule training so that nobody but you attends training more than six hours a day. Eight-hour sessions can be scheduled if

necessary, but users retain information better if they attend shorter sessions.

- Evening courses allow shorter sessions.
- Arrange shifts so that those attending classes are rested and alert. To minimize interruptions during training, postpone attendees' duties or assign them to other people.

Once you and your Project Manager agree on a schedule, post the schedule at your agency.

After initial training, your agency's training needs will depend on personnel turnover. You can provide training for new users either by conducting classes on your own or by enrolling new employees in classes taught by Spillman personnel. Spillman Technologies recommends that you require new employees to demonstrate proficiency in the areas of the software required for their jobs and that you give them limited privileges on the software until their skills justify additional access.

Defining Standards for Searching and Entering Data

This section contains recommended standards for data searches and data entry. The suggestions come from Spillman Technologies and agencies already using the software. Distribute copies of your own standards to your users before training.

Changing record number formats

Several Flex tables number their records. By default, they use a sequential number format. Write down the names of any tables whose record number format you want to change. Later, when setting up the software, you can use the Next Record Numbers table (`synxtids`) to enter the new formats. The following table lists the available formats.

Format	Examples
Sequential number	000000001, 000000002, 000000003...
Year+Number	98-000001, 98-000002, 98-00000... 99-000001, 99-000002, 99-000003
Year+Month+Number	9811-0001, 9811-0002, 9811-0003... 9812-0001, 9812-0002, 9912-0003
Year+Month+Day+Number	980730-01, 980730-02, 989073-03... 980731-01, 980731-02, 980731-03

Different agencies that use the same table can have different record number formats. For example, a police department might use the format 98-P00001 while a sheriff's office might use the format 98-S00001.

Suggested standards for searching data

For your agency to use the software to its potential, your database should contain only one record for each name and incident.

The software itself helps prevent the creation of duplicate records. It forces users to search for existing records before adding certain information (such as names). However, this "forced search" feature is only as effective as your users' searches. For example, if a user searches for the name Tom Anderson, the search will not find a person who is entered as Thomas Anderson or Thomas Andersen.

To ensure effective searches, instruct your users to follow these standards:

- Use as few letters as possible when searching for names.

- Include the initial of the first name when it is needed to narrow the list. For example, to search for Thomas Jones, enter:

Last: **jones** Fst: **t***

- Use wild cards where possible. See “Wild card searches” on page 45.
- When unsure of an exact spelling, use the bracket wild card to retrieve all possible spellings.
- When searching for a hyphenated name, conduct a wild card search on each part of the name. Or, use one part of the name with asterisks on both sides, in case the name was originally entered in reverse order. Do **not** include the hyphen because the name may have been entered without a hyphen.

A user should add a record only when a thorough search does not reveal any matching records.

Wild card searches

Wild cards are symbols that can be used to represent other values in a name. The software uses three wildcards: the asterisk (*), the question mark (?), and brackets ([]).

A question mark substitutes for any single character. An asterisk substitutes for multiple characters. Brackets list alternative letters or an alternative range of letters to search on. Following are sample uses of wild cards.

Searching for	In this field	Retrieves
anders?n	Last (name)	Records containing the names Andersen and Anderson
m??ee	Last (name)	Records containing last names such as Magee, McGee, and McKee
harris*	City	Records containing city names such as Harrison, Harriston, Harrisburg, and Harrisville
?ob*	First (name)	Records containing names such as Robert, Roberta, Roberto, Robby, Bob, and Bobby.
gonzale[sz]	Last (name)	Records containing the names Gonzales and Gonzalez
mcmill[a-i]n	Last (name)	Records containing the last names McMillan, McMillen, and McMillin

Searching for	In this field	Retrieves
smith*	Last (name)	Records containing last names starting with Smith, including hyphenated names such as Smith-Thompson
*thompson	Last (name)	Records containing last names ending with Thompson, including hyphenated names such as Smith-Thompson
thom	Last (name)	Records containing last names that contain the letters Thom, such as Smith-Thompson or Thompson-Smith

For more information on conducting wild card searches, see the Online Help.

Identifying a name match

It is up to your agency to determine the minimum amount of data that two Name records must have in common before they are considered an exact match. The following guidelines will assist you.

NOTE

A personal identifier is a person's Social Security Number, date of birth, or driver license number. An environmental identifier is a person's home address, home or work phone number, or related system involvement.

Type of name searched	Information that must match to constitute a match
Adults in custody	Last name, first name (or derivative of first name), and either one personal identifier or two environmental identifiers provided by the custodial party and verified by the data entry person.
Adults not in custody (including suspects of citations or warrants) and juveniles	Last name, first name (or derivative of first name), and one or more personal identifiers in the information provided.
Adult and juvenile non-offenders	Last name, first name (or derivative of first name), and either one personal identifier or two environmental identifiers.

Suggested standards for entering data

Everyone in your agency must follow the same standards when entering data. That way, anyone can search on a particular data element (such as **Fudd** in the **Last** field) and be assured of retrieving all related records.

The data entry standards in this section are grouped according to the task, as follows:

- “Adding personal names” on page 47
- “Adding driver’s license numbers” on page 48
- “Adding scars, marks, and tattoos” on page 48
- “Adding business names” on page 48
- “Adding addresses if you have Geobase” on page 49
- “Adding addresses if you do not have Geobase” on page 50
- “Adding alias names” on page 50
- “Using alert codes” on page 52
- “Adding Property records” on page 52
- “Adding Vehicle information” on page 52
- “Dealing with unknown data in Name records” on page 53

Although your standards might differ from the suggestions, the completed data entry standard format sheets that you distribute to your users should contain similar content.

Adding personal names

Instruct users to follow these standards when adding personal names:

- Capitalize names according to your agency’s standards (either all caps or mixed case).
- Enter the full, legal name, including the middle name if you know it. Do not use a nickname unless it is the person’s actual name.
- If the name has a suffix, such as Sr, III, MD, or Ph.D., enter the suffix in the **Suffix** field. The **Suffix** field follows the **Mid** field. The following example shows a properly entered name.

Last: **Ashley-McGee** Fst: **William** Mid: **Richard** Jr

- Leave the **Mid** field blank if you do not know the person’s middle name. Do not enter an asterisk (*) or **Unknown**.
- Enter nicknames in the **Comments** field or in an alias Name record. For more information, see “Adding alias names” on page 50.

- Use or omit specific punctuation marks according to your agency's standards. Note that `Jr` in the above sample is not followed by a period.
- Use punctuation in maiden-married names (Reynolds-Fisher), father-mother family names (Rodriguez-Gonzales), and other multi-word surnames (De La Rosa) uniformly, according to your agency's standards.

TIP

When someone in the database legally changes his or her name (for example, to a hyphenated married name), add a new name record and link to the previous name as an alias Name record. This method of handling name changes ensures that all involvements remain connected to the original Name screen.

Adding driver's license numbers

Instruct users not to include hyphens or blank spaces in driver license numbers.

Adding scars, marks, and tattoos

Instruct users to use punctuation, such as quotation marks, uniformly—according to your agency's standards. If a word or phrase appears on a tattoo, instruct users to enclose the word or phrase in double quotation marks when entering it in the SMT detail window. If a word or phrase refers to something depicted on the tattoo, instruct users to omit the quotation marks. Entries similar to the following enable users to conduct more specific searches later:

"Peace" and dove on left bicep

Peace sign on left bicep

Adding business names

Instruct users to follow these standards when adding business names:

- Use the **Last** field for the legal name of the business.
 - If the name is too long, enter as much as possible and omit the rest.
 - Omit suffixes (such as **Company**, **Corporation**, and **Incorporated**) and their abbreviations (including **PC**, **Inc.**, and **Corp.**). If a suffix is necessary, enter it in the **Suffix** field.
 - Omit the word **the**. For example, enter **Book Browser** instead of **The Book Browser**.
 - Use an ampersand (&) in place of the word **and** in all business names. When placing an ampersand between initials, omit any spaces between the letters and ampersand. For example, enter **B&L Railroad**.

- Abbreviate government departments (for example, **Mount Vernon Parks Dept** and **US Coast Guard**) according to your agency's standards.
- Otherwise, to ensure that all personnel enter the same name in the same manner, do not use abbreviations.
- Use the **Fst** field for the specific store or building number if the business has multiple locations. For example, enter 7-Eleven store #16002 as follows.

Last: **7 Eleven**

Fst: **16002**

- Use the **Comments** field for additional name information.

Adding addresses if you have Geobase

The Geobase module greatly simplifies user entry of addresses. When set up properly, the geobase recognizes major intersections, common abbreviations such as **N** for North and **Bld** for Boulevard, common places in your jurisdiction (schools, restaurants, churches, and so on), and duplicate addresses in different cities. When the user enters an address, the geobase performs a search and displays all matching addresses. Then, the user selects the correct address.

If your agency has the geobase, instruct your users to follow these standards when entering addresses:

- Use a physical address whenever possible. Avoid using just a PO box number.
- Enter the parts of the address in this order: house number, direction, street name, and street type.
- To enter an apartment number or a house number that includes a suffix, separate the apartment number or suffix from the rest of the address by a semicolon, as in the following examples:

214 N Main;½

45 West Melrose Avenue; 5B

- Aside from using the semicolon as described above, do not use punctuation anywhere in addresses.
- If a major intersection is defined in the geobase, you can enter the intersection in place of an exact street address. Separate the names of the intersecting streets with an ampersand, as in **Boardwalk & Ventnor**.
- If a common place is defined in the geobase, you can enter the place name instead of the exact street address. For example, if the geobase

contains a McDonald's restaurant identified as McDonalds North, you can enter **McDonalds North** in place of the street address. The geobase supplies the address.

Adding addresses if you do not have Geobase

If your agency does not have the Geobase module, instruct your users to follow these standards when entering addresses:

- Use a physical address whenever possible. Avoid using just a PO box number.
- Enter the parts of the address in this order: house number, direction, street name, and street type (Street, Avenue, Boulevard, and so on) or suffix. The following examples show properly entered addresses:

130½ E Iroquois St Apt 45

306 E 5000 S Lot 65

- If the house number contains a suffix, as in **130½**, enter the suffix in the format chosen by the agency (**130½**, **130 ½**, or **130.5**).
- Use only agency-approved abbreviations such as the following.

Street	St	Lake	Lk	Post Office Box	PO Box
Road	Rd	State Road	SR	Rural Route	RR
Drive	Dr	County Road	CR	Trailer Court	Trl Ct
Avenue	Ave	North	N	Trailer Park	Trl Pk
Lane	Ln	South	S	Parkway	Pkwy
Circle	Cir	East	E	Boulevard	Blvd
Highway	Hwy	West	W	Apartment	Apt

- Use or omit punctuation in addresses, in accordance with your agency's standards.

Adding alias names

The name fields of the Names table are to be used only for a person's legal name. For any other name the person uses—or any nickname that cannot be found using a standard search—the user should create a separate alias Name record in the Names table.

For example, the user should create an alias Name record for an alias, a former name, or a nickname that cannot be found using a standard search.

Former Name/Nickname/Alias	Legal Name
Cassius Clay	Muhammad Ali
Chris Evert Lloyd, Chris Evert	Chris Evert Mills
Babe Ruth	George Herman Ruth

The user should **not** create an alias Name record for any nickname that can be found using a standard search.

Nickname(s)	Why an alias Name record is <i>not</i> needed
Bob	Because searching for ?ob* finds Bob as well as Robert
Bill	Because searching for ?ill* finds Bill as well as William
Dick, Rick, Rich	Because searching for ?ic* finds these names as well as Richard

Instruct users to follow this procedure when creating an alias Name record:

1. If you are aware that the person uses a nickname (or other name that is not the legal name), conduct a standard search for that nickname. This enables you to make sure the nickname has not yet been entered.
2. If you do not find the nickname and you are certain that the nickname refers to the person in question, create an alias record for the nickname.

If you are **not** certain that the nickname refers to the person in question, get approval from the appropriate person in your agency before you enter the alias.
3. Fill in only the **Name**, **DOB**, and the **Alias for** fields in the Alias Name record.
4. Enter any additional information, including descriptions, in the **Comments** field under the legal name.
5. Connect all involvements associated with the person to that person's main Name (legal name) record.
6. If you must indicate that a certain offense or warrant was created under an alias record, enter this information in the **Comments** field of the main Name record.

Using alert codes

The Names table lets users enter certain Alert codes (defined by the agency) on individual Name records. Due to civil liability in some areas, instruct users to enter the following information in the **Comments** field of a Name record containing any alerts:

- The incident number or other text justifying the alert.
- The date the alert code is being entered.
- The name of the person entering the alert code.

If entering an alert regarding a gang, the user should also notify the appropriate persons or departments so that they can create intelligence involvements on the name.

Adding Property records

Instruct users to follow this procedure when adding Property records:

1. Access the Property table.

The software does not make the **Add** button available until you see whether the database already contains a record for that particular property.

2. Search by owner, serial number, or another unique characteristic of the property.
3. If the search finds a definite match, update the information as necessary to reflect the property's current status.

If the search does not find a match, add the property.

Adding Vehicle information

Instruct users to follow this procedure when adding a Vehicle record:

1. Access the Vehicle table.

The software does not make the **Add** button available until you see whether the database already contains a record for that particular vehicle.

2. Search by license plate number or vehicle identification number (VIN).
3. If the search finds a definite match, update the information as necessary to reflect the vehicle's current status.

If the search does not find a match, add the vehicle.

- Include at least a license plate number or VIN.
- To ensure accurate and uniform data, use the lookups whenever they are available.

- Limit license plate entries to alphanumeric characters. Do not include spaces, hyphens, or other special characters.
- If you do not know the license plate number, leave the field blank. Do not enter **None** or **Unknown**.
- If you do not know the owner's name, leave the **Owner** field blank. Do not enter **Unknown**.

Dealing with unknown data in Name records

Sometimes, users must add a record to the Names table when full name information is not known and when personal or environmental identifiers are not available. Some examples of instances when this may be necessary follow.

Name Type	Suggested Procedure
Civil process name entries without full name information	If the name of a person or business associated with a civil process service does not meet name entry requirements, civil process personnel may have to complete the entry at a later date. To mark such records for future modification or deletion, enter the code CIVIL in the Name Type field.
Prison bookees without complete name information	Use the Jail Management module's No Name Booking option until the true name of the prisoner can be determined.
Prison bookees without complete name information	Use the Jail Management module's Express Booking option until the true name of the prisoner can be determined.
Unknown deceased persons	Enter the Law Incident number associated with the report of death in the Last field of the Names table. If the victim is a male, type DOE JOHN in the Fst field; if a female, DOE JANE ; if an infant, DOE BABY . After learning the true name, update the record.

Sample data entry standards for Agency 1

Personal names

Users at this agency:

- Use formal names such as William.
- Capitalize the first letters of all names.

- Omit punctuation.

Last	First	Middle	Suffix
Smith	Cynthia	B	
Larson	Daniel	Michael	Jr
Jones	Albert		Jr
Crescent	Reginald	Franklin	III
Ford	Henry		II

Business names

Users at this agency:

- Enter as much of long business names as will fit, and omit the rest.
- Omit corporate designations, for example **Inc** and **PC**.
- Omit punctuation.
- Use abbreviations only if the official business name contains them.

Last	Last
Central Aeronautical Parts	DMC
State University	A L Meany Meats
Red Moon Bakery	

Addresses

Users at this agency:

- Enter as much of long addresses as will fit, and omit the rest.
- Follow agency-approved abbreviations.
- Omit punctuation.
- Follow agency-approved formats for fractional addresses, intersecting streets, and mileposts.

Following are examples of correct address entries for this agency.

7123 E 100 N	800 State St
5404 Joel Lane	3620 N US 91
306 W Main St	123.5 N 200 W (fractional addresses)
960 Junipero Dr	100 N & 200 E (intersecting streets)

45 Sandy Ave	US 91 & SR 23 (intersecting highways)
5440 Monterey Blvd	US 91 at MR 142 (mileposts)
5204 Pine Street	PO Box 2361
4 Darwin Ave #6	800 State St

Free text entry Users at this agency follow standard rules of English for capitalization, punctuation, and spelling and strive for conciseness.

Sample data entry standards for Agency 2

Names

Users at this agency:

- Enter names in all uppercase (capital) letters.
- Enter suffixes in the **Suffix** field.
- Omit punctuation and special characters other than hyphens.
- Separate the parts of a compound surname with a hyphen.
- Separate the parts of a multi-word surname with a space.

Last	First	Middle	Suffix
ROMERO-GONZALES	JESUS	RAMON	
DE LA ROSA	MARIA	TERESA	
OBRIEN	DAVID	TIMOTHY	III
ST MARIE	TOMAS	MIGUEL	
REYNOLDS-FISHER	DEBBIE		

Business names

Users at this agency enter business names as they appear in the local telephone directory, except:

- They enter store numbers in the **Fst** field.
- They eliminate the word **THE** from business names (**TACK SHOP**, not **THE TACK SHOP**).
- They omit business name suffixes and their abbreviations.

Addresses

This agency has the Geobase feature. Users at the agency:

- Omit punctuation and special characters other than semicolons, single quotation marks, and ampersands.
- Enter intersections in the order of direction, street name, single quotation mark (') or ampersand (&), second direction, and second street name, as in:

N CRAYCROFT ROAD ' E SUNRISE DRIVE

E SWAN ROAD & N RIVER ROAD

- Enter rivers, creeks, and washes without a direction (N, S, E, or W).

If the location is an intersection of a wash and a street or road, users enter the wash name and the intersecting street just as they would any other intersection:

PANTANO WASH & S HOUGHTON ROAD

If the location is in a wash that is not associated with a street or road, users enter the wash name followed by a semicolon and a cross coordinate. (The semicolon marks the cross coordinate as a comment.)

SANTA CRUZ RIVER; 1 MILE S OF PINAL COUNTY LINE

- Enter highways without a direction (for example, **AZ286**, **US89**, **I10**, **I19**, and **CATALINA HIGHWAY**).
- Replace highways with common street names when street addresses are used (for example, **5600 N ORACLE ROAD**, not **US89**).
- Enter apartment numbers, space numbers, and so on as comments following the street name:

7000 E SPEEDWAY BOULEVARD; SPACE 367

Analyzing Information Flow and Collecting Data

If the major functions at your agency have not been analyzed recently, analyze them now.

Analyzing information flow

To determine the changes necessary to effectively implement your computer system and software, analyze the flow of information in your agency. Flowcharting can help. Use it to:

- Show how, by whom, and on what forms information is received.
- Show the tasks involved in processing information and who performs these tasks.
- Show who uses the information.
- Help you make decisions throughout the computer implementation.

You can use any flowchart symbols you wish because only your agency will use the charts. Sample flow charts are included in the Recommended Forms Packet. Using the provided flow charts as a guideline, prepare similar charts for each system module and table purchased. The person who knows the current procedures best should flowchart the process and submit the charts to you before training begins for each management process listed below.

- Dispatch
 - Call taking and dispatching
 - Dispatching wreckers
- Records
 - Incident management
 - Investigation
 - Follow-up
 - Warrants
 - Field information cards
 - Traffic citations and warnings
 - Accidents
- Jail
 - Bookings

Analyzing current forms

Obtain a copy of each form used, and analyze the form's purpose by asking the following questions:

- What activities necessitate the use of this form?
- What person or department initially fills out this form?
- What persons or departments modify, review, or approve the form after it is filled out?
- Is the form permanently stored? Where?
- Why and how often is the form used or referred to after storage?
- Choose one of the following to describe the status of each form:
 - “In an automated system, this form accomplishes nothing. We can eliminate it.”
 - “The automated system accomplishes the purpose of this form. Users can view or print the information as needed. Therefore, the form serves no purpose.”
 - “We will still need this form, without modifications, for the following reasons....”
 - “We will still need this form, with modifications as described, for the following reasons....”

Based on your analysis, eliminate as many paper forms as possible to concentrate information in the computer. Your decisions may take several months because processes often change in the first several months of implementation.

To reduce future waste of obsolete forms, Spillman Technologies recommends that you approve all form orders. The Recommended Forms Packet includes a set of forms recommended for use with the software.

Collecting information

Before going online, use forms such as those in the Recommended Forms Packet to collect all the data that is to be entered into the database. Copy the blank forms as needed so that you have enough space. To ensure that the information gets entered into your system correctly, write or type it on the worksheets according to the data entry standards that you established. Ignore the forms that apply to modules that your agency has not purchased.

Writing down codes to change

After collecting the data, you can determine whether you need to add or change any codes in the code tables. Refer to the *Code Table Setup and Maintenance Manual* for instructions and alphabetical listings of code tables by module and description.

Installing the Network, Hardware, and Operating System

Spillman Public Safety Software operates over a TCP/IP network. The software recognizes each PC by its IP address, set up by the network administrator.

Before Spillman Technologies can install the software, you must complete the following installation tasks:

- Have the cables installed and have a qualified vendor test all cabling and connection equipment. Different types of cabling require different test criteria and specifications.
- Set up the server, PCs, printers, and other hardware.
- Install the operating system, and set up operating system security.
- Test all hardware.

This section provides some installation information, but you should rely on your vendors and their documentation for complete installation information.

Installing the cables

Spillman Technologies recommends providing sufficient cabling into an area that is large enough for initial and future training sessions and administrative meetings. You can then bring a PC into the room from another location as needed.

Also, if you know where you will locate future PCs and printers, you can save money and time by wiring to those locations now.

CAUTION

If you use unshielded cable, be careful not to run it across sources of interference, such as fluorescent lights. Problems can also arise if you run cables over distances greater than 100 feet.

Before ordering any hardware, ask your Project Manager for a list of hardware that has been approved for use with the software.

Testing the cables

The following testing recommendations are provided for your convenience. They might not be complete.

NOTE

Your agency, not Spillman Technologies, is responsible for the installation and use of any required file transfer programs.

10BaseT twisted pair cables

All eight lines should be used for one segment and not split into multiple terminations.

- Connector ends: RJ45
- Stress testing: 20 MB/S using LanCat cable testers (required of each segment and patch cable)
- Other segment tests: Near End Cross Talk, SWR, Length, Parallel Propagation, Data Flush (rather than simulated signal), correct pinout on both ends

10Base2 coaxial cables

- Cable type: Coax RG58, 50 ohm
- Connector ends: Do not use “screw on cable” type or non-pressure type connectors
- Segment tests (IEEE 802.3 standards must be achieved): Length, Echo, Impedance, Outer Shield SWR, Dielectric SWR.

Installing the hardware

Your agency is responsible for installation of the computers and peripherals. Refer to the manufacturer’s specifications.

Positioning computers

Following are some guidelines for positioning the server and PCs:

- Have the network server installed in its permanent location before calling Spillman Technologies to install the software.
- Locate it off the floor in a clean, cool, well-ventilated area free of cigarette smoke.
- To reduce the chance of someone deliberately damaging the server, locate it where a reliable employee can monitor it.
- Be sure the server is accessible, day and night, to the employees who will do the backups.

- If, after installation of the software, you must move the server into the training room, be sure that the training room has a phone connection for the modem. Placing the server in the training room allows easy access to the server if it needs to be reset during testing or training. If the server is too large to be moved, you can run temporary cables from the computer room to the training room.
- To inhibit unauthorized access, set up the PCs in rooms that can be locked.

Establishing connectivity

You must have an approved connectivity set up so that Spillman technicians can access your database when you call for help with a software problem.

Other setup tasks

- Set up the server
Configure the operating system to meet the needs of your agency.
- Set up the PCs
Verify that each PC is recognized on the network.
- Make sure that all interface hardware is installed and ready to communicate with Spillman Technologies.
- Hardware configuration list
Maintain a list of hardware configurations including:
 - The port each printer is connected to
 - Information on each PC, including configuration and setup
 - Information on each printer, including the configuration
 - The IP address of each hardware item
 - Any special hardware setups

Tasks after installation

Proper maintenance reduces the number of failures and the amount of down time. Review your hardware documentation for care instructions.

Completely filling a hard disk can cause problems. Therefore, check the available disk space regularly and plan for future needs. Also monitor the use of memory and plan for future needs. Insufficient memory can cause the software to run very slowly.

Always test new hardware.

Installing the operating system

Refer to your operating system documentation to install the operating system on your server and set up logins and system security.

Setting Up the Training Room

Before training can begin, you must set up a training classroom to accommodate 16 users and the trainer. Test the training room as described in this section, and have the setup verified by your Project Manager. Spillman Technologies may cancel training if the training room, equipment, and modem are not ready and tested before the instructor arrives.

Use the following procedure, and consult your hardware and software vendors or Spillman Technologies as needed.

To set up the training room:

1. Let your Project Manager know how many students will be attending each class.
2. Select a training room of sufficient size.
3. Set up eight PCs facing the front of the room:
 - Allow sufficient space for two users to sit comfortably at each PC.
 - Using masking tape, label the PCs train1 through train8.
 - Get keyboard templates from your Project Manager, and place a template over the function keys on each PC's keyboard.
4. Set up a PC, facing the class, for the instructor.
5. Furnish the following items at the front of the room:
 - chalk or marker board
 - chalk or markers
 - chalk eraser or marker eraser
 - a chair and a desk, table, or other work area for the trainer
6. Ensure that there is a printer in or near the room.
7. Provide enough printer paper for training.
8. Place an overhead projector and a projection screen at the front of the room. If possible, the projector should have a bulb of at least 400 watts to work well with an LCD projection unit. You cannot use an opaque projector with an LCD unit.
9. Test the PCs to verify correct operation. You must be able to log in to each PC and access the Training database main menu. For more information, see [“Test procedures” on page 64](#). During installation, the Spillman installer can assist you in verifying that the PCs are operating correctly.

10. After the training room is set up, either the Spillman installer or you must test the PCs in the training room and record the following information about each PC:
 - Port number or network address
 - Any special connection instructions required to obtain login prompt

Test procedures

Once you set up the training room, test the PCs as follows:

1. Using `train1` through `train9` as the PC's login names and passwords, be sure that you can log in on each PC.

For each login, you should see the main menu. The words `Spillman TUTORIAL` should appear in the window's title bar.
2. Check mouse functionality. Do the following:
 - Click the **Hub Module** menu item.
 - Click **Names Table**.
 - Click the **Fwd** button. A Name record should appear.
 - Click the **Exit** button to exit the Names screen.
3. Test printer operation. Do the following:
 - With your printer set up and on line, log in to the host computer.
 - Set the `SPOOLER` variable by editing the Spillman script file, which is in the `/usr/local/bin` directory. Insert the following lines at the top of the file's `SPOOLER` section, substituting the queue to which you wish to print for the variable *printrname*:


```
SPOOLER=sdslp printrname  
export SPOOLER
```
 - Save and exit the file.
 - Go to the first record in the Names table, and click the **Prt** button. The system should print the record.
 - Exit the software.
4. Using the training schedule and a training login, verify that each module purchased is on the system and working:
 - Display the screen for one or more records in the module.
 - Add a record and delete it, or try using the program in other ways.

- Select a report from any module. Run the report for a limited data selection. Display the report, and then print it.
- 5. Test the administrative logins by logging into your system as admin1 through admin9.
- 6. Test the approved support connectivity by having Spillman Technical Services log on to the system.

Getting Spillman Software Installed

After you set up the hardware, operating system, and training room, contact Spillman Technologies to install the software. This includes installation of the hub modules, other interfaces and modules purchased by your agency, code tables with default codes, default application parameters, and the Practice database.

If the software installation is performed on site, the installer also tests the PCs in the training room.

Ask the installer where the tutorial database is located so that you and other users can begin self-training.

Install hazardous materials database (Spillman task)

If your agency purchased the Premises Information module and the hazardous materials database and has the appropriate license, Spillman Technologies will install the current hazardous materials database on your system. Contact Spillman Technical Services for the current installation and yearly maintenance fee.

If you are not licensed and wish to be, write or call the National Safety Council:

National Safety Council
444 North Michigan Avenue
Chicago, IL 60611
1-800-621-7619, ext. 1300
FAX: 1-708-285-0797

Once the National Safety Council licenses you to use the hazardous materials database, the Council will send you data on diskette(s) that are designed to be used with Windows. When you receive these diskettes, contact Spillman Technical Services. A Technical Services representative will load Flex-compatible versions of these files onto your system.

Using the Practice Database

The Practice database functions the same as the Live database. It retains data changes when users log out, and it requires your administration. These features make the Practice database the ideal place for both you and your users to practice skills learned in training.

In addition to using this database to practice user tasks, you can use it to practice administration tasks before performing them on the Live database. For example, before assigning all security privileges on the Live database, you can assign a few security privileges on the Practice database.

NOTE

All changes that you make in the Practice database are erased when the `cleanprac` program is run.

Troubleshooting the Practice database

If problems arise in the Practice database, troubleshoot it just as you would the Live database. After you begin using the Live database, most problems that arise in the Practice database will also occur in the Live database, because both databases use the same executable files. Refer to [Chapter 13, “Support and Troubleshooting,” which begins on page 371](#) for information on diagnosing and solving problems.

If the data on the Practice database becomes corrupted, you can run a cleaning program to restore the original (default) data. By default, the `cleanprac` program does not overwrite data contained in `apnames`, `apparam`, `syparam`, or `sypriv`. Therefore, you can clean the Practice database *without* affecting personnel names, application parameters, system parameters, or system privileges.

Cleaning the Practice database

Follow these instructions to periodically clean the Practice database.

1. Log on as root at the system console.
2. Access the software.
3. Enter **sh** at the command line to access the shell.

4. Enter one of the four following commands.

Enter this command	To
cleanprac	clean the database without affecting the information in the apnames, apparam, syparam, and sypriv tables
cleanprac -a	clean the database <i>and</i> the information in the apnames, apparam, syparam, and sypriv tables
cleanprac -p <i>tablename</i>	clean the database without affecting the information in the apnames, apparam, syparam, and sypriv tables and the other specified table(s)
cleanprac -w	clean the Practice database and give everyone write permission to all Practice database files (useful if permissions are incorrectly set)

After you enter the **cleanprac** command, the screen displays the message Installing clean practice database. When it displays Clean practice database is now installed, the cleaning program is finished.

Printing Blank Screens

Before entering data into the tables, you might want to print out copies of certain tables while they are blank. Then, if the system goes down, you can record information on the printouts. When the system comes back up, you can enter the data from the printouts.

Spillman Technologies recommends making multiple copies of the following screens.

Table Name	Program Name
Names	names
Law Incident	law
EMS Incident	ems
Fire Incident	fire
Vehicle	vehicle
Property	property
Arrest	jlarrest
Offense	jloffens

The following example describes how to print a blank Law Incident screen:

1. At the command line, enter `law`.

The Law Incident screen opens.

2. Press Alt+Print Scrn.

The system prints the screen to the Windows clipboard.

3. Open an image manipulation program, such as Microsoft Paint, and paste the image into the program.
4. Reduce the image to include only the empty screen. Then, print the image.

You can print a list of the names of all screens in the system by entering `rppgm` at the command line and running the `rppgm` report. This report lists every program in the system.

Entering Data

This section describes data you must enter when going on line with the software.

Entering historical records

Your decision about which historical records to enter into the database depends on technology and funds:

- Some agencies can transfer data between computer systems.
- If data transfer proves impossible but you have sufficient funds, you can hire data entry clerks to enter historical record part- or full-time. These persons must be reliable, able to maintain confidentiality, and skilled at data entry.
- If (as is the case with most agencies) you do not have the funds to hire temporary help and your regular employees do not have time to enter all historical records, you might want to concentrate on entering historical criminal arrest records. Not many other historical records are actually used in the future.

Entering historical criminal arrest records

At most agencies, the expense of entering arrest records for many years back is fully justifiable. Arrest data is valuable and frequently used, making it necessary to have all arrest records in one system.

Order in which to enter records

If your arrest records are filed by name, then each time you book someone who has prior arrests, enter this person's prior arrest records. This method of entering historical arrest records ensures that your database contains the records for currently active persons in whom your agency has the most interest. When entering a prior arrest record, change the original arrest number as indicated below.

If your arrest records are filed by date, enter the most recent arrests first. Then, enter older arrests back to the earliest date that your agency deems necessary. When entering a prior arrest record, change the original arrest number as indicated below.

Where to enter records

The Jail Management and Law Enforcement Records Management modules both accept historical arrest records. For a custodial arrest (at most sites, an incarceration of more than six hours), enter prior arrest information into the Name, Arrest, and Offense tables through Jail Management's Full Booking

program (`fullbook`). For a non-custodial arrest (at most sites, an incarceration of less than 6 hours), enter information through Jail Management's Criminal History Booking program (`noncustody`).

Changing arrest numbers when entering records

For all historical arrests and bookings, use the original arrest number but insert a letter at the beginning or in the middle to ensure that the number remains unique. For example, change 123456 to H123456, 1H23456, or 123H456. If you omit the letter, the software might eventually generate a duplicate number when a user adds an arrest.

Entering active data

Some information must be present in the database before your agency goes on line. Spillman Technologies suggests you enter the following records:

- All Wanted Persons records.
- All active civil process records (if you have the Civil Process module).
- Complete records on all inmates currently in the jail (if you have the Jail Management module).
- All personnel records (if you have the Personnel Management module).
- Vehicle records for all agency vehicles (if either you have the Fleet Maintenance module or you want to enter fleet vehicle records into the regular Vehicle table and classify them as department vehicles).
- Information on all businesses or public buildings within the jurisdiction (if you have the Premises Information module).
- All local code tables accessed by the modules your agency has purchased. For a list of code tables, refer to the *Code Table Setup and Maintenance Manual*.

You might want to enter other information, depending on the resources and time available. For example, you might enter field interview cards from a specified period because the information might be relevant to current investigations. The information is more useful in the database where users can retrieve and analyze it quickly.

Setting Up a System for Entering Reports

Your Recommended Forms Packet includes a sample incident reporting handbook with instructions and cue cards for most types of incidents. To facilitate reporting and data entry, the sample handbook follows the layout of the relevant screens.

Regardless of the method used for reporting incidents, officers should adhere to standards in the handbook. Officers should refer to the incident reporting handbook for:

- General instructions on reporting incidents.
- Specific instructions for gathering initial or supplemental incident information.
- The appropriate application cue card for the type of incident (robbery, rape, property damage, ambulance calls, and so on). Each application cue card contains the items of information generally needed for a complete investigation of that type of incident.

The application cue cards present in the narrative fields of all Incident tables are similar to those in the handbook. When a user performs a lookup at a narrative field, a window lists the available outlines by title and number. In this way, a clerical employee can simply select the outline used by the officer and then type the appropriate information under each heading.

Customizing the incident reporting handbook

You can modify the handbook as needed:

- In the handbook, do not ask officers to provide information that you can obtain from another source. For example, if your agency uses the CAD module to capture initial incident information, do not request the same information in the handbook.
- If your agency receives dispatch services from another agency, make cards that request certain information from the dispatch service for each incident. With these cards, you and your officers both know the type of information being provided by dispatch, so that officers do not waste time duplicating information.
- If you modify an application cue card in the handbook, modify the corresponding application cue card in the narrative field.

Photocopy the handbook instead of having it printed commercially, so that you can easily update cue cards.

Changing Over to the Flex Software

The best time for your agency to start using Flex with the Live database is at the beginning of any month, at 1 minute past midnight. However, if you are concerned about having Spillman Technical Services available if something should go wrong, you might want to make the change during regular business hours (Monday through Friday, 8–5 MST).

Spillman Technical Services responsibilities

Support is the first priority at Spillman Technologies. Learn who supports each of the following:

- Hardware (PCs, cables, printers, modems, and so on)

Unless you purchase hardware or a hardware maintenance contract from Spillman Technologies, an outside vendor will provide your hardware support.

- Operating system

The outside vendor from which you purchased the UNIX operating system will provide support.

- Public safety software

Spillman Technologies supports Flex software.

Only you and your official assistant(s) should communicate directly with Spillman Technical Services. All other users should refer their questions to you. Problems reported by others are subject to an hourly charge and not subject to guaranteed response times. The hourly charge is based on the current fee schedule.

Attempt to solve all problems before reporting them. Spillman Technologies and the hardware vendor provide Online Help and troubleshooting guidelines for this purpose. When you cannot solve the problem, provide Spillman Technical Services with enough information to duplicate the problem. Spillman personnel often need to see the problem to be able to analyze and fix it. See [Chapter 13, “Support and Troubleshooting,” which begins on page 371](#), for details on reporting problems.

Before calling or faxing a problem, fill out the Support Information Worksheet, which is included in the Recommended Forms Packet. The information you provide on the worksheet is essential in helping Technical Services diagnose and solve the problem.

Maintenance during first months of use

During the first few months of working on the Live database, pay especially close attention to the following maintenance tasks:

- Based on recommendations made during training, determine who in your agency will perform backups, how often backups will be done,

and where backups will be stored. Start keeping regular backups that can be used to restore the database in case of data loss or corruption.

- Begin keeping a system log (user access log) to record your software maintenance tasks. See the *Security Setup and Maintenance Manual*.
- Monitor your users' work on Flex, and help users use the software to its full benefit. Analyze system use and resolve any problems.
- Find and eliminate duplicate records in the Names table and (optionally) the Vehicle table.
- Audit the other system tables closely to identify users who consistently enter data incorrectly so that you can provide them additional training.
- Implement a plan to continue auditing data to identify data that is entered incorrectly, data that does not conform to the standards you have set, and duplicate data. For instructions, see [Chapter 12, "Data Auditing," which begins on page 337](#).
- Using the *General Tutorial*, train all users who missed the initial training.
- Implement a continuing plan to train new employees, refresh training of present employees who need greater skill, and train one or more assistant SAAs.

Submitting bug reports and enhancement requests

The term "bug" refers to any function of the software or hardware that does not conform to user or technical documentation. A feature that does not function as you think it should but does function as documented is not a bug. If you discover a true bug in your software, notify Spillman Technical Services. They will make every reasonable effort to correct the problem.

An enhancement is any feature or function you want that your software is not yet designed to accomplish. If you have a suggestion for a general system enhancement, or if you find a system deficiency and can suggest how to resolve it, you can provide that information to Spillman Technologies on the Enhancement Request Worksheet in the Recommended Forms Packet. After receiving the enhancement request, Spillman Technologies estimates the cost to your agency and offers a contract to develop it.

You can also present enhancement ideas at the annual Spillman Users' Conference. Agencies share ideas at the conference and then vote on the ideas. If the majority of users agrees, a future Flex release will include the enhancement, which will become available to all agencies with a current support agreement.

Chapter 3

General Setup

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Overview of General Administrative Tasks

For your software to function correctly, you must perform several setup tasks. This section provides instructions or refers you to other documentation, as needed, so that you can complete each setup task.

Making backups during setup

During software setup, frequently back up the system to save all the setups in case something happens before or during system cutover. Refer to your operating system documentation and [Chapter 10, “Backups,”](#) which begins on [page 227](#), for instructions.

Comparing administration tools

When comparing Classic administration tools and Sentryx administration tools, use the following table for reference.

Administration Type	In Classic	In Sentryx
System Agency Names	apagency	Agencies menu item in the System menu group
Code Tables	Various tables throughout the system	Code Tables menu item in the System menu group
Partitioning	sypartn	Partitioning menu item in the System menu group
System Parameters	syparam	System folder in the Settings menu group
Application Parameters	apparam	Module folder in the Settings menu group
Jail Parameters	jmparms	System folder in the Settings menu group
Privileges	sypriv	System Privileges menu item in the System menu group
System User Names	apnames	Users menu item in the System menu group

Setting up Flex security

You can set up security at any time during software setup. Just be sure to do it before going on line. For instructions about setting up security, refer to the *Security Setup and Maintenance Manual*.

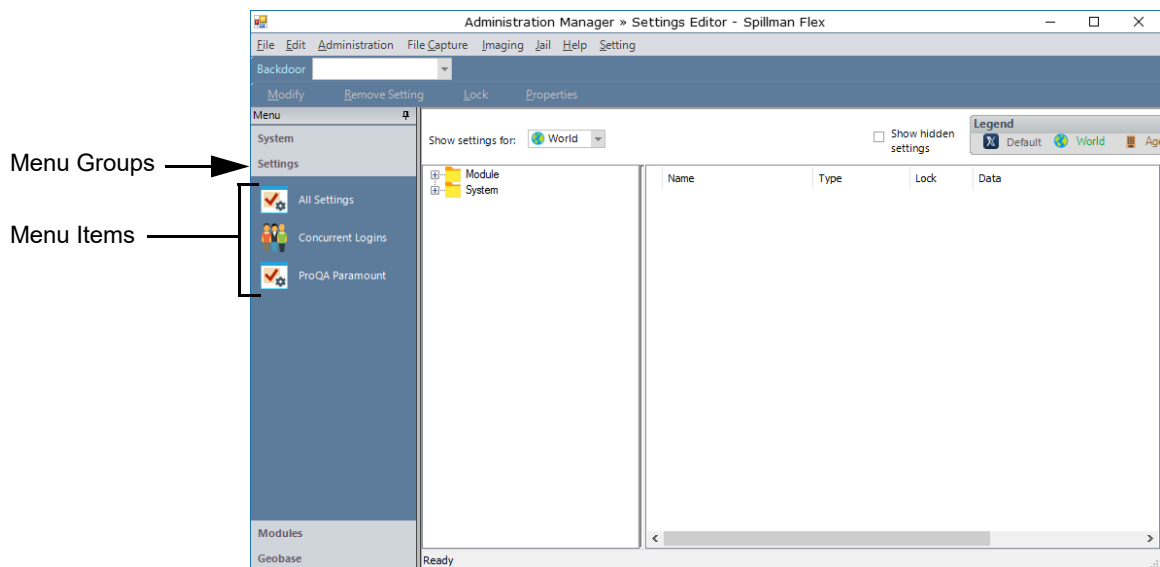
Using the Administration Manager

In Flex, you have the choice of using the Classic administration screens or the Administration Manager. The Administration Manager allows you to manage all Sentryx system settings in one central location. From this screen, you can accomplish most of the standard administration functions of the system.

To access the Administration Manager, use either of the following methods:

- Select **Administration > Administration Manager** from the menu bar on any screen.
- Enter **adminutil** at the command line.

The Administration Manager opens. The Administration Manager always opens to the **Settings** menu group.



CAUTION

Do not use the **Backdoor** field unless directed to do so by Spillman Technical Services.

Navigating the Administration Manager

The Administration Manager is designed to place, in one location, all of the necessary administration screens for setting up your software. The Administration Manager is comprised of menu groups to assist you in navigating to the desired area of the Administration Manager. Within each menu group, there are menu items that you use to open screens within the Administration Manager.

The following list displays the menu groups and their respective menu items.

System menu group

Agencies: Add and maintain agency records for all shared and associated agencies.

Code Tables: Set up and maintain any code table in the system.

Partitioning: Determine which Sentryx screens in the system you want to partition.

System Privileges: Set up access, modify, and delete system privileges for tables and records.

Users: Add and maintain system user records for all users on your system.

Settings menu group

All Settings: Customize Sentryx settings using the Settings Editor.

Concurrent Logins: Manage settings for concurrent logins.

ProQA Paramount: Manage settings for ProQA screens.

Modules menu group

Administration: Set up system directories. For more information, [see “Setting up a directory” on page 104](#).

File Capture: View and modify records and set up file types for use with the File Capture module. For more information, [see “Setting Up the File Capture Feature” on page 165](#).

Imaging: View and modify Imaging records, and set up a camera and file types for use with the Imaging module. For more information, [see “Imaging module setup” on page 188](#).

Jail: Set up and maintain auto holds, bond types, flags, issue groups, issue items, jail merge, location security, and property management for use with the Jail module. For more information, [see “Sentryx Jail Module Setup” on page 197](#).

Geobase menu group

Settings: Configure the GIS interface communication settings.

ESRI Interface Setup: Set how the GIS interface communicates with the ArcGIS server.

Address Maintenance: Re-verify system addresses with ESRI and correct errors.

For a full explanation of setting up the Geobase module, see the *Sentryx Geobase Manual*.

Setting up codes using the Administration Manager

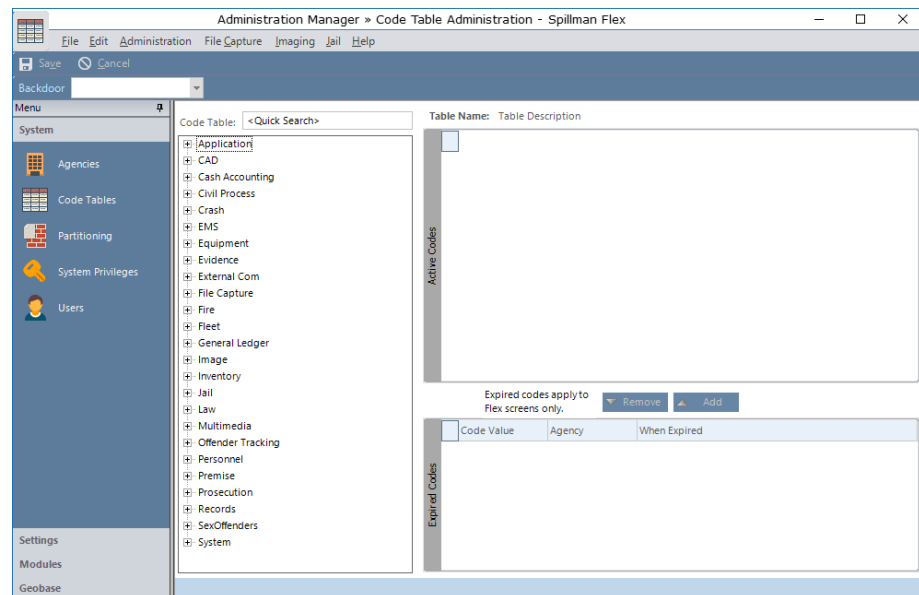
The Administration Manager allows you to set up all of your code tables. The Code Table Administration screen displays all of the code tables in Flex, organized by module. Use the Code Table Administration screen to set up system codes.

Access the Code Table Administration screen by selecting **Administration** menu > **Administration Manager** > **System** menu group.

With the **System** menu group open:

1. Click the **Code Tables** menu item.

The Code Table Administration screen opens.

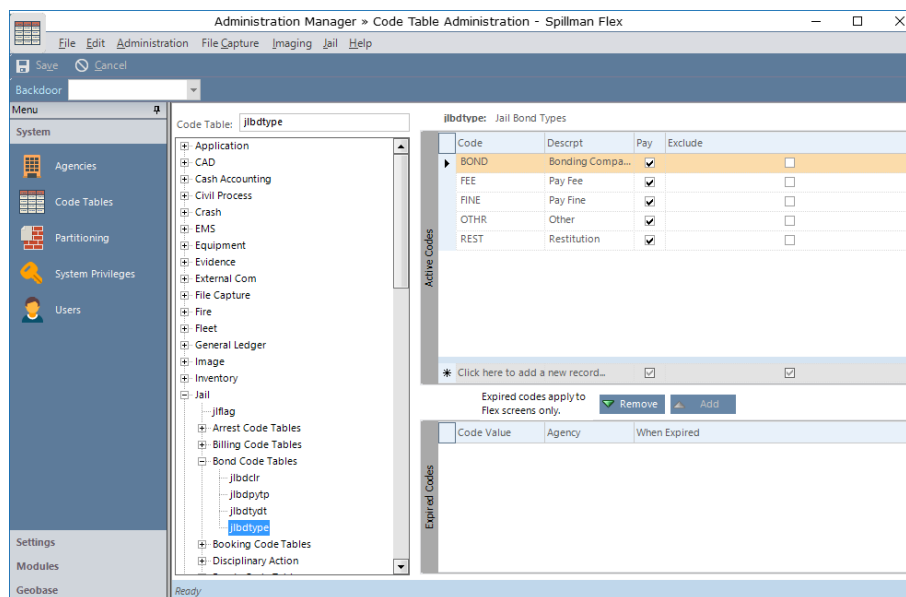


2. In the **Code Table** area, locate the module to which the code table is associated. Click the PLUS SIGN (+) to view a list of associated code tables. Or, you can use the **Quick Search** field to locate the code table name.

When you begin entering a code table in the **Quick Search** field, the software automatically highlights the first code table that matches what you have entered. As you enter more letters, and the possible code table candidates narrows, the software to highlight the first code table that matches what you have entered.

If you enter a value in the **Quick Search** field that does not match any code tables, the software changes the **Quick Search** field to display in red.

3. Select the code table you want to view or modify. The codes for that table appear in the **Active Codes** area.



For full instructions on adding, modifying, and deleting code tables, see the *Code Table Setup and Maintenance Manual*.

Adding/modifying common codes

The *Code Table Setup and Maintenance Manual* provides a complete list of common code tables and instructions on adding and modifying codes. Refer to those instructions to complete the following tasks:

1. Enter a record in the Official Names Codes table (apnames) for everyone who will use the software *and* everyone who should be included in your agency's permanent records (such as judges, prosecutors, and probation officers). You can also enter this same information using the Administration Manager. For more information on adding Users records, see [“Adding system user names” on page 84](#).

Give each person a unique Name Code. This code can be a payroll ID number, a badge number, or other code. Spillman Technologies recommends that you use a code that you will never reassign to another user.

Omit ranks and titles from official names so that you do not need to update the apnames record every time someone's rank or title changes.

2. Enter a record in the Agency Codes table (apagency) for every agency that will use the software *and* every agency that will be

referred to. You can also enter agencies by using the Administration Manager. For more information, see [“Partitioning” on page 103](#).

3. Add/modify city codes (in `apcity`), state codes (in `apstate`), and other common codes—such as alert codes, color codes, and personnel skills codes—as needed.

The software includes On-Call Scheduling (`ocmain`), which you can use to store a list of agency and non-agency personnel who are on call. The people in `ocmain` do not, by definition, need to have a Users record or `apnames` record. However, if they are agency users or their names are to be included in lookup lists, you must create a Users record or `apagency` record. For example, people who set bonds must have a Users record or `apnames` record because the software looks at the Users records for valid entries. Refer to the Online Help for information on On-Call Scheduling.

Adding/modifying other codes

Add/modify codes required by your agency’s individual Spillman modules. Refer to the *Code Table Setup and Maintenance Manual* for code table lists and instructions on adding and modifying codes.

TIP

When you set up Flex security, limit code table access so that only the person responsible for maintaining the code tables has Add and Modify access to them. The *Security Setup and Maintenance Manual* describes how to set up security.

Adding system agencies

The Administration Manager provides a screen that allows you to quickly add Agencies records. The software references these Agencies records throughout the software for any field that requires your users to select an agency. You should create an Agencies record for every agency that will use the software and for every agency that will be referenced by the software.

Access the Agencies screen by selecting **Administration** menu > **Administration Manager** > **System** menu group.

To add an agency:

1. With the **System** menu group open, click the **Agencies** group item.

The Agencies screen opens.

Administration Manager » Agencies - Spillman Flex

File Edit Search Administration File Capture Imaging Jail Help

Search Add Clear X Save Cancel < > Use Partition File

Backdoor

Menu

System

Agencies

Code Tables

Partitioning

System Privileges

Users

Settings

Modules

Geobase

Code: [] Spillman Code: []

Agency Description: []

Agency Name: []

ORI Number: []

Dispatch Agency Type: []

Type of Agency: []

Agency CEO Name Id: []

Agency CEO Name: []

Agency CEO Title: []

Report Heading: []

County Name: []

CDC Identifier: []

Phone: [0-] []

Address: []

City Name: []

State: []

Zip Code: []

Logo Link: []

2. Click **Add**.

- Enter information as appropriate for your agency. You do not need to enter information in every field. Use the following field information to fill out the Agencies screen.

Code

4 characters, alphanumeric field. A code for the agency.

Spillman Code

9 characters, alphanumeric field. The agency code used by Spillman Technologies.

Agency Description

30 characters, alphanumeric field. A description of the Agency code.

Agency Name

30 characters, alphanumeric field. The full name of the agency.

ORI Number

9 characters, alphanumeric field. An identification number for the agency, assigned by the FBI. The identification number is used in NIBRS.

Dispatch Agency Type

1 character, alphanumeric field. Indicates the type of units dispatched from this agency. Enter **1** for law enforcement, **f** for fire, or **e** for EMS.

Type of Agency

30 characters, alphanumeric field. The type of agency, for example, Sheriff's Department, Police Department, or Fire Department.

Agency CEO Name Id

9 characters, alphanumeric field. The Name number for the person to whom payments are to be made for civil process charges. Click the **Use** button to open the Names screen and search for a Names record.

NOTE

You must enter a Name number in this field if your agency uses the Civil Process module.

Agency CEO Name

20 characters, alphanumeric field. The name of the agency's CEO.

Agency CEO Title

20 characters, alphanumeric field. The title of the agency's CEO.

Report Heading

50 characters, alphanumeric field. The heading that appears on agency reports, usually the agency name.

County Name

30 characters, alphanumeric field. The county where the agency is located.

CDC Identifier

5 characters, alphanumeric field. The agency's organization identifier, assigned by the Department of Public Safety.

Phone

Alphanumeric field, format (xxx)xxx-xxxx xxxx. The agency's phone number.

Address

40 characters, alphanumeric field. The agency's address.

City Name

15 characters, coded field (apcity). The city where the agency is located.

State

2 characters, coded field (apstate). The state where the agency is located.

Zip Code

10 characters, alphanumeric field, format xxxxx xxxx. The agency's ZIP Code. The last four characters are optional.

Logo Link

40 characters, alphanumeric field. The path to the agency's logo. The software uses the logo on reports.

4. Click **Save**.

NOTE

You may use the Official Names code table (apagency) to create Agencies records, instead of using the Agencies screen. For more information, see the *Code Table Setup and Maintenance Manual*.

Adding system user names

Flex contains a screen within the Administration Manager for adding Users records for each individual who will use or have access to the software. You should also include everyone who should be included in your agency's permanent records (such as judges, prosecutors, and probation officers).

Access the Users screen by selecting **Administration** menu > **Administration Manager** > **System** menu group.

1. With the **System** menu group open, click the **Users** menu item. The Users screen opens.

2. Click **Add**.
3. Enter information as appropriate for your agency. You do not need to enter information in every field. Use the following field information to fill out the Agencies screen.

Name Code

5 characters, alphanumeric field. A name code for the person.

UID Login Name

12 characters, alphanumeric field. The person's login name, if applicable.

Officer Name

15 characters, alphanumeric field. The person's first and last name.

Full Name

60 characters, alphanumeric field. The person's full name. (This field is longer to accommodate the person's entire name.)

Agency Code

4 characters, coded field (**Agencies** module or apagency code table). The code for the person's agency.

Division Code

3 characters, coded field (tbassgn). The code for the person's division.

Employee Number

9 characters, alphanumeric field. If your agency uses the Personnel Management module, enter the record number of the person's Employee record (employee). If your agency does not use the Personnel Management module, enter an employee number used by your agency.

Phone Number

18 characters, format (xxx)xxx-xxxx xxxx. The person's phone number.

Pager Number

18 characters, format (xxx)xxx-xxxx xxxx. The person's pager number.

Shift

15 characters, coded field (tbshift). The employee's assigned shift.

Security Level

2 characters, numeric field. Used by the Personnel Management module to determine an employee's security level for viewing Employee records. Security levels in the range 1–99, with 99 being the *least* access possible. An employee can view only the Employee records of employees whose security level is equal to or less than his or her own. You must assign a security level to each employee for the security levels to work appropriately. For more information, see the *Security Setup and Maintenance Manual*.

4. Using the **Contacts** tab, if necessary, add additional contact information, such as cellular phone numbers, e-mail addresses, and fax numbers. Click on **Click here to add a new record**. In the **Contact** field, enter the additional contact information. In the **Description** field, enter a description of the type of contact information. Add additional contacts, as necessary.
5. Using the **Secondary Agencies** tab, if necessary, add any additional agencies to which the person belongs. This field references the

Agencies module or `apagency` code table. You can assign a user to multiple secondary groups.

Secondary groups are used when setting agency security. The user is granted privileges based off of their primary agency and any secondary agencies. In the case of conflicting privileges, the agency that grants the most privilege prevails. For example, a user who is assigned a primary agency of the Springfield Police Department and assigned a secondary agency of the Springfield Fire Department is granted the privileges of both agencies.

6. For more information on agency security, see the *Security Setup and Maintenance Manual*.
7. Click **Save**.

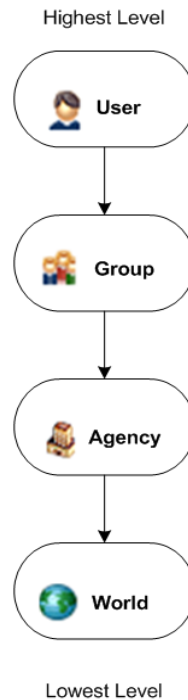
NOTE

You may use the `apnames` code table to create Users records, instead of using the Users screen. For more information, see the *Code Table Setup and Maintenance Manual*.

Setting privilege levels

The software allows you to control what privileges or limitations specific groups of users have to the software. You can set up access to the software using the following privilege levels: World, Agency, Group, and User. These levels can be applied to different sections of the software, such as specific tables and menus.

Higher privileges outrank lower privileges when privileges are conflicting.



User privileges

Individual privileges are the highest level of privilege and should be used the least often. User privileges trump all other privileges and require the most setup time. The more you can set up privileges in groups, the better off you will be when it comes to updating personnel turnover.

Group privileges

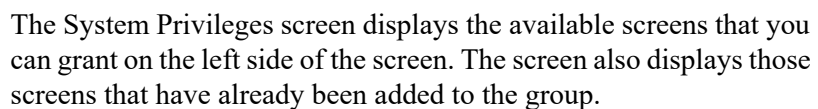
Use Group privileges whenever possible instead of user privileges. Your agency's office organization chart can help you define groups, but ultimately you should group users according to the tasks they perform, not their job titles. If most members of a group need to access a menu or program that they do *not* already have access to as a member of the World group or level, give the entire group access to that menu or program.

World privileges	There are certain privileges that everyone using the software will need. Grant World privileges for those software features that all users must use, such as the main menus.
-------------------------	--

The System Privileges screen allows you to specify customized privileges for system users. You can use the System Privileges screen to set up privileges for both Sentryx screens and Classic screens. You can organize privileges into World, Agency, Group, and User categories.

Access the System Privilege screen by selecting **Administration** menu > **Administration Manager** > **System** menu group.

- The System Privileges screen opens.



2. In the **Show Privileges For** field, select the desired privilege level.

NOTE

If you select **Group**, the software displays a **Refresh** button. If you have added additional groups, you can click the **Refresh** button to update the groups displayed in the lookup list.

3. From the List screen, select the screen that you want to add to the selected privilege level. Also, you can use the **Quick Filter** field to search for screen or table names. The software filters the displayed screens and tables to display only those screens and tables that match what you have typed. The software filters both the screens and tables that have not been added to the group (on the left) and those that have been added to the group (on the right).

4. Select the screen that you want to add to the selected group or individual.

The System Privileges screen displays all Sentryx screens and tables and some common Classic tables. If you want to add a screen or table, use the **Add Custom Sypriv** field. Enter the screen or table name and click the **Add Custom Sypriv** button. The software adds the screen or table to the list of assigned privileges.

5. Click the **Add** button to add the table to the list of assigned privileges.
6. Select the check boxes for those privileges that you want to apply to the table.
7. Click **Save** or press Ctrl+S.

If a privilege is no longer valid for a table because a higher privilege outranks it, the privilege name appears in italics.

Working with Super User privileges and Admin Mode

Super User (SU) privileges are different than Admin Mode privileges, in that a person with SU privileges has access to all screens and partitions system wide and can do more than a person with only Admin Mode privileges.

If a user has only Admin Mode privileges, the user can do those things listed on [page 91](#) for only those screens for which they have Admin Mode.

Super User (SU) privileges

Super User (SU) privileges allow users to access all programs in the system. Super Users can view all partitions, and can access, add, modify, and delete all records. Super Users also have Admin Mode privileges. See the *Working with Admin Mode* quick card for more information. You must grant SU privileges in the System Privileges table (`sypriv`) for those users you want to have Super User privileges.

1. At the command line, enter **su** and press Enter.
2. The software displays a dialog box informing you that Super User status has been enabled. Click OK to close the dialog box.
3. The software displays **SU** at the bottom left corner of the command center to indicate that you are in Super User mode.
4. Perform the administrative task you want to perform.
5. Enter **su** at the command line again to exit super-user status. The software displays a dialog box indicating that super-user status has been disabled.
6. Click **OK** to close the dialog box.

Admin Mode

Flex introduces a new feature to allow you to grant additional privileges to select users. The Admin Mode privilege allows you to grant specific privileges to users that are only applicable to specific Sentryx screens that you specify. If a user has the necessary privileges, the user can use Admin Mode to customize fields, change a field label, hide a field, make a field required, or make the value uppercase. For certain fields you can also index the field. You must grant the user Admin Mode privileges for the desired screens using the System Privileges screen. For more information on setting up Admin Mode privileges, see the *Security Setup and Maintenance Manual*.

To use Admin Mode:

1. Open the screen for which you want to modify fields. Select **File > Admin Mode**. The software indicates you are in Admin Mode

3 General Setup Overview of General Administrative Tasks

at the bottom right corner of the screen and displays a red mode indicator under the screen toolbar.

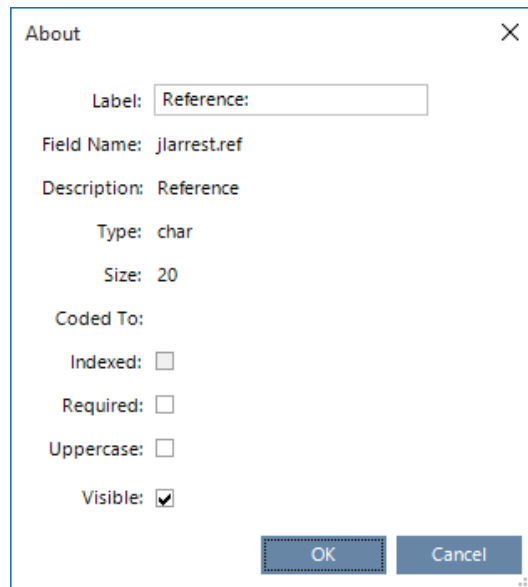
Admin Mode indicator →

The screenshot shows the 'Arrest - Spillman Flex' application window. The interface includes a menu bar (File, Edit, Search, Administration, File Capture, Imaging, Jail, Reports, Help) and a toolbar with icons for Search, Add, Clear, Save, Cancel, and navigation. The main form is divided into sections: 'INMATE' with fields for Last, First, MI, Sex, Race, DOB, S.C., J.S., I.C., Current Booking, Scheduled Release, Name Number, and Location; 'Arresting Officer' and 'Arresting Agency' fields; 'Reference' and 'Tracking' fields; and 'Additional Info' tabs (Circumstances, Offenses, Bookings, Involvements). A red 'Admin Mode' indicator is visible in the bottom right corner of the screen toolbar.

Admin Mode alert →

2. Right-click the field you want to modify. Then, select **About** from the shortcut menu.

The About dialog box opens.



Label: Reference:

Field Name: jlarrest.ref

Description: Reference

Type: char

Size: 20

Coded To:

Indexed: ☐

Required: ☐

Uppercase: ☐

Visible: ☒

OK Cancel

3. You can do any of the following:
 - In the **Label** field, change the field label for this and all associated fields in the system.
 - Select the **Indexed** check box (if available) to index the field.
 - Select the **Required** check box to make the field required.
 - Select the **Uppercase** check box to make the field value uppercase.
 - Select the **Visible** check box to make the field visible on the screen. Clear the check box to hide the field.
4. Click **OK** to save your changes
5. To exit Admin Mode, select **File > Exit Admin Mode**.

NOTE

To use Admin Mode on any screen, you must have Admin system privileges for that particular screen.

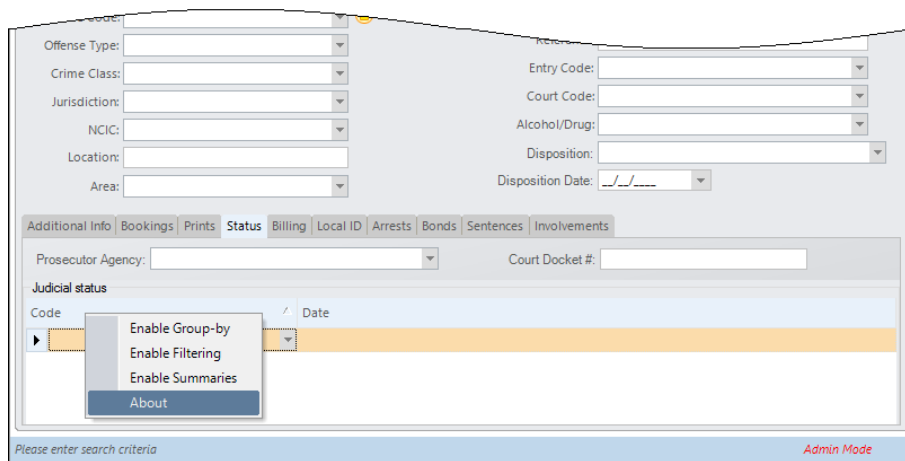
CAUTION

After you make changes, be sure to exit Admin Mode by clicking **File > Exit Admin Mode**.

Using Admin Mode on Sentryx grids

You can use Admin Mode on Sentryx grids to require users to add records in a grid. You can also require users to fill out certain columns when adding a record. To require a column in a grid:

1. Open the screen that contains the grid with the column that you want to make required (for example, open the Offense screen).
2. Turn on Admin Mode (select **File** menu > **Admin Mode**).
3. If the grid is contained in a tab, open the tab (for example, open the **Status** tab).



4. Right-click anywhere on the grid header. Then, select **About** from the shortcut menu.

A dialog box similar to the following opens.

Table Name: jlofjsdt

Record Required: ☐

Required Field(s):

- ☐ Date
- ☐ Code

OK Cancel

5. If desired, select the **Record Required** check box. This check box requires all users to add a record
6. If desired, in the **Required Fields** area, select the check box for each column that you want to require.

NOTE

If you do not select the **Record Required** check box, but do select one or more of the check boxes in the **Required Fields** area, the software does not require the user to add a record to the grid. However, if the user does add a record to the grid, the software requires them to enter information in the required columns.

7. Click **OK**.
8. To exit Admin Mode, select **File > Exit Admin Mode**.

NOTE

You must close and reopen the screen in order for the changes to take effect.

Setting up the System Log screen

You can set up the software to monitor and log user access to the system. The system stores these logs in the System Log table (sylog). However, you must first set up the logging parameters in the System Parameters table (syparam).

To view a System Log record:

1. At the command line, enter **sylog**.
2. You can search for a specific log by searching on the **User ID** and **Terminal ID** fields in the **User Identification** area. Or, you can search on the **Table Accessed** field in the **Data Accessed** area.
3. In the **Misc. Data** field, you can view information about the type of access.
4. After viewing the data, click **Exit** to return to the command line.

The screenshot shows the 'sylog' application window titled 'System Log'. It has a menu bar with 'File', 'Edit', 'Search', 'Tools', and 'Help'. Below the menu is a toolbar with buttons for 'Exit', 'Srch', 'Mod', 'Add', 'Clr', 'Del', 'View', 'List', 'Totl', 'Prt', 'Back', 'Fwd', 'Jadd', 'Jres', and a 'Use' button. The main area is divided into three sections: 'User Identification', 'Data Accessed', and 'Misc. Data'. The 'User Identification' section contains fields for 'User ID' (sds), 'Terminal ID' (16:114), and 'Time/Date' (09:42:12 04/07/17). The 'Data Accessed' section contains a 'Table Accessed' field (lwmain) and an 'Action' field (R Record Viewed in Mobile). The 'Misc. Data' section contains a text area with the text 'PRIMARY KEY FIELDS AND VALUES' and 'lwmain.number :0408-0005'. At the bottom, there is a status bar with 'User: sds' and 'Go back in current settable' on the left, and 'OVR' on the right.

Printing a record

1. With the System Log table open, locate the record you want to print.
2. Click the **Print** button.
3. Select the printing mode and click **OK**.
4. Specify the printer, page orientation, and number of copies.
5. Click **Print**.

Logging parameters

To tell the software which users, groups, tables, and actions to monitor, you must add two log parameter values in the syparam table. The Names and Groups value (lognames value) tells the software which users and user groups to monitor (for example, Ben Johnson). The Tables and Actions value

(`logmodes` value) tells the software which tables to monitor and which actions to monitor in those tables (for example, deletions in the `nmmain` table).

You must include both parameter values. Otherwise, the software cannot log any information. You can review and print log entries and modify parameter values as often as you like.

Working with application parameters and Sentryx settings

Flex uses two tools to customize your software: application parameters and settings. Application parameters are used to customize the majority of the software. Sentryx settings are used to customize the new Sentryx screens.

When setting up your software, you will use two tools to set up application parameters and Sentryx Settings. For application parameters, you use the Application Parameters table (`apparam`). For Sentryx settings, you use the Settings Editor screen.

Application Parameters table

Settings in the Application Parameters table (`apparam`) provide the software with instructions and data that apply throughout the software. For example, the `areacode` setting (application parameter) tells the software the area code to use whenever a user does not specify an area code, and the `askinvl` parameter tells the software whether to let users print involvement details. For a list of application parameters, see [“Setting Up Application Parameters Common to All Modules” on page 112](#).

The software comes to you with the settings (application parameters) set to the default values listed under [“Application parameters for individual modules” on page 99](#). Modify the existing values as necessary.

To use the Application Parameters table:

1. At the command line, enter **`apparam`**.

The Application Parameters table opens.

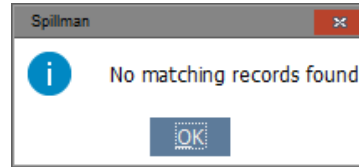
2. Click **Srch** and search for the application parameter.

For example, to search for the **areacode** parameter, click **Srch**, enter **areacode** in the **Application Parameter Name** field, and click **Accept** (Alt+A).

If that parameter is already loaded, its **apparam** record opens.

Change the value in the **Application Parameter Value** field to meet your agency's needs. (This field is a text field.) For example, click **Mod** and change the value of **areacode** to your local area code and click **Accept** (Alt+A) to accept the new value.

If the parameter is not already loaded, the screen displays the message.



3. Click **OK** or press Enter.

4. Click **Add**.

A blank apparam record appears.

5. Enter the parameter name in the first field, a description in the second field, and the value in the third field. Then, click **Accept** (Alt+A) to complete the entry.

You can find the information for the apparam fields in one of the following locations:

- “Application parameters for individual modules” on page 99.
- Chapter 4, “Module Setup,” which begins on page 181. Look under the name of the module that uses the parameter.

Turning a parameter on or off

You can turn many application parameters on or off to match your agency’s needs. For example, if you are going to set up agency partitioning, turn on the `agncyprt` parameter. To turn a parameter on, enter **TRUE**, **YES**, or **1** in the **Application Parameter Value** field. To turn a parameter off, enter **FALSE**, **NO**, **0**, or (in some cases) nothing. The charts in this chapter show values of **YES** and **NO** for simplicity.

Application parameters for individual modules

Some individual modules also require application parameters. For a list of application parameters required by a specific module, look up that module in Chapter 4, “Module Setup,” which begins on page 181. If the information is not in there, refer to the Online Help for the module. Set up application parameters for specific modules the same way you set up common application parameters.

The System Parameter table

The System Parameter table (syparam) contains parameters that are not specific to any module but control system-wide functions. The System Parameter table works the same as the Application Parameters table. See “System Parameters” on page 109.

Settings Editor screen

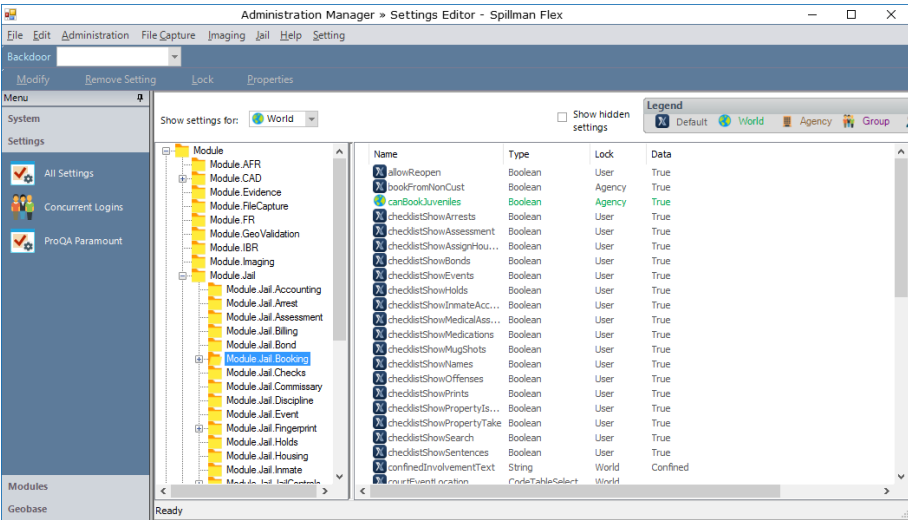
Application parameters that relate to Sentryx screens are referred to as settings in the software. The Sentryx settings function is similar to application parameters in previous Spillman versions. However, you use the Administration Manager to add, modify, and delete the Sentryx settings.

Module and System settings

There are two types of settings: Module settings and System settings. Module settings are specific to a module only. System settings affect the entire system.

The Settings Editor is a screen of the Administration Manager that provides a way to set and change Sentryx settings in the software. The Settings Editor contains a comprehensive list of all Sentryx module and system settings in the software (however, there are some application parameters that you will still set up).

The settings on the Settings Editor screen are organized by module in a tree menu. You can access these settings by expanding the tree menu to your desired module.



The Settings Editor is designed to simplify the setup process for your system. You can use the Settings screen to:

- View and edit all Sentryx settings.
- Assign settings by level.
- Associate levels with a particular color and icon.
- Settings include the module and a description in the name.
- Lock a setting at the desired level for an agency or group.

Adding Sentryx settings

To add Sentryx settings:

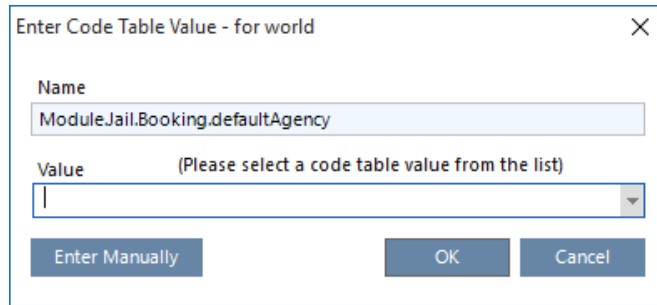
1. From the **Settings** menu group, click the **All Settings** menu item.
2. In the **Show settings for** field, enter the privilege group for which you want to view or set settings.
 - **User:** Settings specific to the user only.
 - **Group:** Settings that affect only those users in a specified group.

NOTE

If you select **Group**, the software displays a **Refresh** button. If you have added additional groups, you can click the **Refresh** button to update the groups displayed in the lookup list.

- **Agency:** Settings that affect only users for the agency specified.
 - **World:** Settings that affect all system users.
 - **Default:** Settings set up by Spillman Technologies to get your agency started. You can modify these values to meet your agency's needs.
3. In the tree menu on the left, use the **System** and **Module** menus to locate the specific setting group you want to modify.
 4. With the setting group highlighted, locate the setting you want to modify in the setting window on the right.
 5. Double-click the setting to modify the value.

A dialog box similar to the following example opens.



6. In the **Value** field, enter the desired setting.

The type of Sentryx settings determines the values that you can enter for that setting. Sentryx settings use one of the following types:

- **Boolean:** Select either **True** to turn on a setting or **False** to turn off a setting.
- **Code Table Select:** Select a single code table value. You can determine which code table the setting references by right-clicking the setting name on the Settings Editor screen and selecting **Properties**. The software displays the referenced code table in the **Details** field.
- **Date Time:** Enter a date (*mm/dd/yyyy*) and a time using a 24-hour time format (*hh:mm:ss*).
- **Integer:** Enter a numeric value. Do not use letters or symbols.
- **List of Code Table Select:** Select multiple code table values. You can add as many code table values as necessary for your agency.
- **List of String:** Enter any combination of numbers, letters, and symbols. You can add as many entries as necessary for your agency.
- **Literal Select:** Select a value from a limited number of preloaded options for the setting.
- **Multiline String:** Enter any combination of numbers, letters, and symbols. The total length can extend to multiple lines of text.
- **String:** Enter any combination of numbers, letters, and symbols.
- **Time:** Enter a time, using a 24-hour time format (*hh:mm:ss*).

7. Click **OK**.

The software saves the new setting value.

Right-click menu options

Right-click on the setting to modify, remove, or lock the setting. You can also view setting properties.

Partitioning

When you partition a table by agency, it is as if you group the records in that table by agency code and then secure each group of records in a separate partition. In actuality, the software does not create partitions. It considers the protection on each record separately. Before the software loads any record for a particular user, it checks the **securid** field of that record to see whether the field contains a value. If the **securid** field contains a value (indicating that the record is part of a partition), the software looks for any sypriv records that define the user's privileges for that record. Then, it acts according to those privileges.

Non-agency partitioning provides great flexibility in securing records. For example, you can create a non-agency partition called `juv` to protect juvenile records. Once a user assigns a record to the `juv` partition, only users who have access to the `juv` partition can access that record. When a youth reaches adult age, a user (who has the necessary permissions to do so) can move that youth's record from the `juv` partition to the Names table.

For full instructions on setting up agency partitioning and non-agency partitioning, see the *Security Setup and Maintenance Manual*.

Customizing help screens

The Classic software comes with a variety of help screens that users can access by pressing the Help key (F1 or Ctrl+W). These help screens describe how to use the fields, menus, function keys, toolbar, buttons, and CAD commands. Additionally, most fields have help screens that show the field name, type, and length. You can customize this information as needed to reflect agency policies and procedures. Be aware, however, that any customization is overwritten when the system is upgraded. For directions on changing help screens, see [“Changing a Help Screen” on page 275](#).

Setting up environment variables

You can change/add environment variables in the user's .profile file or in the script file. Spillman Technologies recommends editing the script for the following reasons:

- Maintenance of user setups is much easier with all environment variables defined in one location, the script.

- Use of the script enables Spillman Technologies personnel to perform software upgrades using a faster and more efficient procedure.

If you edit .profile files, you can link groups of .profiles so that changes made in one .profile are automatically made in other .profiles in the group.

For more information, see [“Editing the Spillman Script” on page 139](#).

Setting up a directory

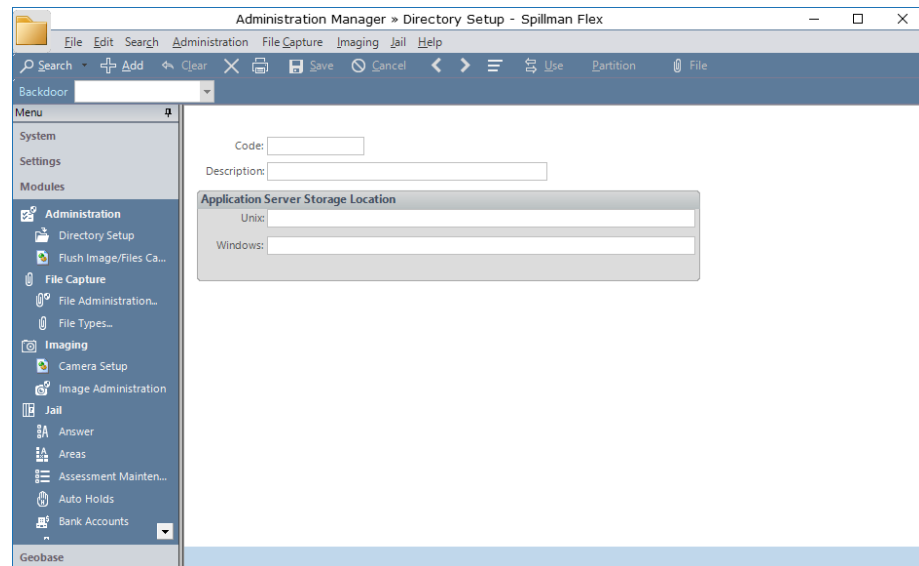
Flex provides a tool to create directories to store files. For example, you can create directories for storing images, thumbnails, and files. You can create directories for all of your file types. The software references these directories when your users are using the Imaging or File Capture modules.

Access the Directory Setup screen by selecting **Administration** menu > **Administration Manager** > **Modules** menu group.

To set up a directory:

1. With the **Modules** menu group open, click the **Directory Setup** menu item. The Directory Description screen opens.
2. Click the **Add** button.
3. In the **Code** field, enter a code for the directory. The code can be up to 4 characters in length. For example, enter **IMG**.
4. In the **Description** field, enter the full name of the directory. For example, enter **Image Directory**.
5. In the **Application Server Storage Location** area, do one of the following:
 - If you have a UNIX server, in the **Unix** field, enter the extension that references the location the software stores the files.
 - If you have a Windows server, in the **Windows** field, enter the extension that references the location the software stores the files.

6. Click **Save** or press Ctrl+S.



Setting up application cue cards

For any text field in Flex, you can create application cue cards to ensure that users enter essential information and enter it in a consistent way. The software comes with many sample cue cards. You can modify these cue cards or create your own. For example, you might want to create cue cards for text fields in the Fire Incident, Arrest, and Wanted Persons tables.

Create your cue cards in the Application Cue Card table (apccard). Following is a sample apccard record. Each field is explained below. For additional information, see “Maintaining Application Cue Cards” on page 285.

The screenshot shows the 'apccard' window titled 'Application Cue Card Table'. It has a menu bar (File, Edit, Search, Tools, Help) and a toolbar with various icons. The form contains the following fields:

- Key for Accessing Cue Cards:** eqrepair.desc
- Outline Sequence Number:** 1
- Description of Outline:** Pressure Regulator Inspection
- Agency:** (empty field)
- Cue Card for Text Field:** A large text area containing a list of 7 items:
 1. Inlet gasket;
 2. Threaded handwheel undamaged?
 3. Pressure guage working?
 4. Pressure adjustment handle working?
 5. Shutoff valve working?
 6. Pressure reducer hose free from cracks?
 7. Quick-connect fittings without visible damage?

The status bar at the bottom shows 'User: sds | Search again to add records to current selection set' and 'OVR Rec 1'.

Description of fields in Application Cue Card (apccard) table

Key for Accessing Cue Cards

Enter the name of the field (up to 16 characters) to which this cue card applies, or press Lookup (Ctrl+E) and select the field name from the list that appears.

Names of the text fields in the Names, Vehicle, Property, and Wanted Persons tables are listed below:

Table	Field Prompt	Key for Accessing Cue Cards
Names	Comments	nmmdesc.text
Vehicle	Comments	vhmdesc.comment
Property	Comments	prmdesc.text
Wanted Person	Remarks	waremrk.text

Outline Seq Number

Enter a combination of numbers and letters (up to 3 characters) to specify the position of this cue card in the list of cue cards for this field. The software sorts entries in this field by number and then letter. For example, entries 43A, ROB, and 35 appear in the following order: 35, 43A, ROB.

Description of Outline

Enter a description of up to 30 characters for the application cue card.

Agency

Enter an agency to designate which agency can view the application cue card. If you do not specify an agency for the application cue card, the application cue card will be available to all users on your system.

Cue Card for Text Fld

Enter the cue card text in this unlimited text field.

Setting up the geobase

If your agency purchased the Geobase module, assign the task of creating the geobase data to the person who will maintain it. With this administrator working full time, full geobase implementation probably will take from two to five months, depending on the size of the area to be geocoded and the complexity of the zones and areas.

Your agency's method of geobase implementation depends on whether you create the initial data manually or with a Graphic Information System package (GIS), such as ArcView®.

Spillman Technologies offers training to assist with geobase implementation. The training consists of on-site visits. During the first visit, the trainer works with your geobase administrator to begin building the map in ArcView. The map can be built either by importing street data into your GIS or by drawing streets and adding street data directly into your GIS. The trainer teaches the geobase administrator how to set up the GIS data so that it is fully compatible with Flex. During the second visit, the trainer verifies the data and instructs the geobase administrator in the use of advanced ArcView tools. The third visit, which occurs toward the end of implementation, focuses on data maintenance and use of the geobase application.

Instruct your geobase administrator to read the *Sentryx Geobase Manual* before the trainer's first visit. The Geobase manual contains a list of required materials and equipment as well as instructions. To minimize interruption, provide a training area that is fairly isolated.

System Parameters

Following is a list of the system parameters. These parameters must be entered in the `syparam` table before you begin using the software.

Parameter name and description	Explanation	Valid value or valid type	Default value																		
chkparnt Check privileges of parent for details	<p>Protects a detail table's records. This parameter instructs the software to: (1) see whether password or partition security exists for the detail table, and (2) if this security is absent, assign the detail table's records the same password or partition security as the detail table's parent table. Do not make any changes to the chkparnt parameter until you contact Spillman Technical Services</p> <p>You can use any of the following values:</p> <table><tr><td>biinsp.premno</td><td>peadmin.empnum</td></tr><tr><td>emnarr.number</td><td>peattend.empnum</td></tr><tr><td>emsupl.number</td><td>peemserv.empnum</td></tr><tr><td>frcase.number</td><td>peetime.empnum</td></tr><tr><td>frnarr.number</td><td>peleave.empnum</td></tr><tr><td>frsupl.number</td><td>pemedic.empnum</td></tr><tr><td>lwcase.number</td><td>petbeadv.empnum</td></tr><tr><td>lwnarr.number</td><td>petrain.empnum</td></tr><tr><td>lwsupl.number</td><td>pework.empnum</td></tr></table>	biinsp.premno	peadmin.empnum	emnarr.number	peattend.empnum	emsupl.number	peemserv.empnum	frcase.number	peetime.empnum	frnarr.number	peleave.empnum	frsupl.number	pemedic.empnum	lwcase.number	petbeadv.empnum	lwnarr.number	petrain.empnum	lwsupl.number	pework.empnum	Detail tables for which you want the parent record checked. See Explanation column.	BLANK
biinsp.premno	peadmin.empnum																				
emnarr.number	peattend.empnum																				
emsupl.number	peemserv.empnum																				
frcase.number	peetime.empnum																				
frnarr.number	peleave.empnum																				
frsupl.number	pemedic.empnum																				
lwcase.number	petbeadv.empnum																				
lwnarr.number	petrain.empnum																				
lwsupl.number	pework.empnum																				
codefltr Enables code table filtering	<p>Determines whether code table filtering is enabled/disabled. You can set up the codefltr system parameter to determine if code table filtering is enabled. If you set this parameter to TRUE, code table filtering is enabled. If you set this parameter to FALSE, code table filtering is disabled and all codes are displayed in lookup lists. When code table filtering is enabled, the lookup lists display only those codes that match the user's assigned agency and secondary agencies assigned from apnames. The following code tables can be filtered by agency on any Classic or Sentryx screen:</p> <p>apnames cdunit lwccode tblaw tbnatur tboff tbzones tbwreck wrrotyp</p>	True/False	False																		

Parameter name and description	Explanation	Valid value or valid type	Default value
copywild Copy Wildcard Characters from Search	Determines whether wildcard characters from search data are copied into new records (when users employ the “copy search data into new record” feature). Spillman Technologies strongly recommends that you keep copywild set to NO . Even when the parameter is set to NO , the software still copies information from fields that do not contain wildcard characters. Set copywild to YES only if you want to allow copying of search data containing wildcard characters into new records.	YES/NO	NO
dmpport	Determines the port on which the daemon manager listens for a server process, such as Dispatch server or Mobile server, to start.	number	9871
logmodes Tables and modes to be logged	Determines the tables that you want the software to monitor and which actions to monitor in those tables. (Refer to the <i>Security Setup and Maintenance Manual</i> for more information.)	Refer to the <i>Security Setup and Maintenance Manual</i> .	
lognames Users and groups to be logged	Determines whose activity you want the software to monitor. (Refer to the <i>Security Setup and Maintenance Manual</i> for more information.)	Refer to the <i>Security Setup and Maintenance Manual</i> .	
secgrps Set secondary group precedence	Determines whether the software allows you to use secondary groups. If you enter primary , the permissions of the primary group supersede the permissions of all other groups. If you enter equal , the secondary groups are taken into consideration. In effect, the software “merges” the various sets of privileges, giving the user the sum of the sets. If you enter off , the software does not allow you to use secondary groups.	primary, equal, off	off
srchdays Allow Days of Week Search	Determines if the software prompts users to search by days of the week when using a Between search type. If you enter YES , when a user performs a Between search on a time/date or date field, the software prompts Enter day(s) of the week to search (UMTWHFS) or tap RETURN for all days: Users can enter the specific day(s) of the week (UMTWHFS) they want to search or search all days.	YES/NO	YES

Parameter name and description	Explanation	Valid value or valid type	Default value
srchtime Allow Between Time Search	Determines the type of “Between” time-date search available. Enter YES to allow users to search for records entered between two times on a series of days (for example, all incidents reported between 8 a.m. and 5 p.m. August 18–23). Users can enter Y when prompted Search for the same time range on each day? and can then respond to the prompts Enter Beginning Time and First Day and Enter Ending Time and Last Day. Enter NO or leave the srchtime parameter blank to allow only the default “Between” search, for example a search from 8 a.m. August 28 to 5 p.m. August 23.	YES/NO/ BLANK	BLANK
sypartn System Table Partitioning	Specifies the tables used in agency partitioning. Enter the tables that you want to allow partitioning on. (Refer to the <i>Security Setup and Maintenance Manual</i> for more information.)	Refer to the <i>Security Setup and Maintenance Manual</i> .	
warnwild Warn on Entry of Wildcard Char	Determines whether users are warned when they enter data containing wildcard characters. Change the setting of warnwild to YES if you want users to receive the warning. (Users can still enter wildcard-containing data by clicking Yes in response to the warning.) If you leave warnwild set to NO , users receive no warning and the software automatically accepts the entry of wildcard characters.	YES/NO	NO

Setting Up Application Parameters Common to All Modules

Following is a list of the application parameters common to *all* modules. These parameters must be entered before you begin using the software.

Parameter name and description	Explanation	Valid value or value type	Default value
adprhist Add Property History	<p>Determines whether users are prompted about adding records to the Property History table (prmhst).</p> <p>If the adprhist parameter is set to YES and a user changes a Property record, the software automatically adds a copy of the previous record to the Property History table.</p> <p>If the adprhist parameter is set to NO and a user changes a Property record, the following prompt appears: Add property history record? The user can click OK or press Enter to add the record or click No to not add the record.</p> <p>The loghist application parameter determines whether the software creates History records for Property records. The loghist application parameter must include prmain for the adprhist application parameter to function properly.</p> <p>The software uses the Property History table for creating UCR reports. Allowing users to determine which records are added to this history table might reduce the accuracy of your UCR reports. If you set the adprhist parameter to NO, Spillman Technologies recommends that you train your agency's users so that they know when to add records to the Property History table.</p>	YES/NO	YES
adultage Age of Adult Status	Sets age at which person is considered an adult.	numeric	18

Parameter name and description	Explanation	Valid value or value type	Default value
advhhist Add Vehicle History	<p>Determines whether users are prompted about adding records to the Vehicle History table (vhmhist).</p> <p>If the advhhist parameter is set to YES and a user changes a Vehicle record, the software automatically adds a copy of the previous record to the Vehicle History table. If the advhhist parameter is set to NO and a user changes a Vehicle record, the following message appears: Add vehicle history record? The user can click OK or press Enter to add the record or click No to not add the record.</p> <p>The loghist application parameter determines whether the software creates History records for Vehicle records. The loghist application parameter must include vmain for the advhhist application parameter to function properly.</p> <p>The software uses the Vehicle History table for creating UCR reports. Allowing users to determine which records are added to this history table might reduce the accuracy of your UCR reports. If you set the advhhist parameter to NO, Spillman Technologies recommends that you train your agency's users so that they know when to add records to the Vehicle History table.</p>	YES/NO	YES
agncyprt Agency Partition Security	Turns agency partitioning on or off. If multiple agencies use your software and you set up agency partitioning as a security measure, set the agncyprt parameter to YES . See the <i>Security Setup and Maintenance Manual</i> for information on agency partitioning.	YES/NO	NO
aliasinv Allow Alias Involvements	Determines if a non-system involvement can be added to an Alias Name record. If aliasinv is set to YES (or not defined), the software allows users to add non-system involvements to an Alias Name record. If aliasinv is set to NO , the software does not allow users to add non-system involvements to an Alias Name record. If a user attempts to add an involvement to an Alias Name record, the software displays the error message: Involvements may not be added to an alias name.	YES/NO	BLANK
areacode Default Area Code	Sets the area code to use whenever a user does not specify an area code. Enter your local area code.	numeric	435
askinv1 Ask to Print Involvements	Determines whether users have the option of printing the involvements detail. If askinv is set to YES and a user prints involvements for a record, the software gives the user the option of also printing the involvements detail. If askinv is set to NO , the software does not offer this option.	YES/NO	NO

3 General Setup Setting Up Application Parameters Common to All Modules

Parameter name and description	Explanation	Valid value or value type	Default value
asknarr Ask to Print Narratives	Determines whether the software prompts users for particular narratives to print. If asknarr is set to YES and a user clicks the Prt button, the software displays Print main narrative? followed by a list of involvement details from which the user can mark the involvement details to print. If asknarr is set to NO , the software prints the main narrative and all involvement details.	YES/NO	YES
askrptlg Ask Report Logging	Determines whether, when someone prints a report, the software displays the prompts Who is it for? and What is the purpose? to help the user keep track of that information.	YES/NO	NO
autokick Mandatory Logoff	Determines if Flex or the Message Center client closes after a specified time has elapsed, regardless of activity. This allows agencies to have a mandatory logoff if a user is actively logged on for more than a predetermined amount of time. If set, the software will warn users at specified intervals of the upcoming logoff. The first line of the autokick parameter value is the number of minutes that users can stay logged on. For example, for 12 hours, enter 720 . The second line is the list of warning times, separated by commas. The software will alert the user that the forced logoff is coming. For example, to alert the user 60 minutes, then 30 minutes and then 5 minutes before logoff, set 60, 30, 15 .	First line: numeric. Second line: numeric separated by commas.	BLANK
autoprint Auto Prt Rcpts/Stmnts/Returns	Determines whether the dialog box that displays the print destination appears when the software automatically prints receipts, returns, or other statements. Set the autoprint parameter to False to have the dialog box that displays the print destination appear. If you want the software to print receipts, returns, or other statements without displaying the dialog box, set the autoprint parameter to True .	True/False	False
autotrnr Auto Tracking Number Calculation	Determines if the software prompts users if they want the software to generate a tracking number for each Arrest record created. Generally, the Spillman Installation department defines this application parameter for you.	1/2/ BLANK	BLANK

Parameter name and description	Explanation	Valid value or value type	Default value
dtorder Order List by Date	<p>Use the dtorder parameter to determine how the software sorts records when someone uses the Begin, End, List, Forward, or Back feature in the Calls, Law, Fire, and EMS tables before performing a search. (This parameter does not affect the search set that a user obtains after searching for records.) The dtorder does not affect Sentryx screens.</p> <p>Set the dtorder parameter to YES to sort by the reported date when someone uses Begin, End, List, Forward, or Back. Set the dtorder parameter to NO to sort by record/incident number when someone uses Begin, End, List, Forward, or Back.</p>	YES/NO	NO
fldsecur Field Security Check	<p>Sets the type of screen on which the software checks for field security.</p> <p>If fldsecur is set to Regular, the software checks only on screens that are <i>not</i> precompiled. If fldsecur is set to Never, the software never checks and screens appear faster. If fldsecur is set to Always, the software always checks. If fldsecur is set to Precompiled, the software checks only on precompiled screens. Refer to the <i>Security Setup and Maintenance Manual</i> for more information.</p>	Regular/Always/Never/Precompiled	Regular
geobase Whether Geobase Record Used	Controls whether the software uses the geobase (if installed) to verify addresses. Set geobase to YES if you have the geobase and you want the software to use it to verify addresses. Set geobase to NO if you do not want to use geobase.	YES/NO	YES
hiderecs Whether Records May Be Hidden	<p>For Classic screens only. Determines whether users can use the Pswd (password) and Partn (partition) buttons. When hiderecs is set to NO, the Pswd and Partn buttons are available only to users who have Super User (SU) privileges. For other users, the Pswd and Partn buttons do not appear on the toolbar. When hiderecs is set to YES, the Pswd and Partn buttons are available to specific users and groups as defined in the User Privileges table (sypriv).</p> <p>With access to Pswd, a user can protect individual records by assigning passwords to them. With access to Partn, a user can protect individual records by moving them into non-agency partitions. For more information, refer to the <i>Security Setup and Maintenance Manual</i>.</p>	YES/NO	NO

3 General Setup Setting Up Application Parameters Common to All Modules

Parameter name and description	Explanation	Valid value or value type	Default value
histinvl Add Owner/Inci pr/vh Hist Invl	Determines whether the software creates history involvements between Property or Vehicle records and associated Name and Law Incident records. CAUTION: Once you enable the histinvl application parameter, do not disable it as it will compromise your data.	prmain or vhmain or both (separated by a space)	BLANK
inmodate Modify Involvement Date	Determines whether users can modify involvement dates. Enter YES to give users the ability to modify involvement dates. Enter NO to signal the software to enter the involvement dates and not let users modify them. The following list indicates the date used for each type of involvement: <ul style="list-style-type: none"> • Accident: date of accident • CAD Call: date reported • Civil Process: date received (if blank, then date issued) • EMS Incident: date reported • Fire Incident: date reported • Law Incident: date reported • Fire Field Interview: interview date • Law Field Interview: interview date • Jail Booking: date of latest arrest (if multiple arrests in booking) • Licenses and Permits: application date • Pawn Activity: chooses most recent from when completed, assigned, or requested • Pawned Property: pawn date • Sex Offender: date record added • Traffic Citation: date issued • Traffic Warning: date issued • Vehicle Impound: impound date • Wanted Person: date received (if blank, then date issued) The Name, Misc, Premises, Property, and Vehicle types of involvements do not use dates.	YES/NO	NO
invlrshp Name/Name Invl Relationships Coded	Determines whether the Relationship field for name to name involvements is coded. Relationship codes are used for IBR (Incident-Based Reporting). <ul style="list-style-type: none"> • If invlrshp is set to YES, the value in the Relationship field on the Involvements screen is coded. Users can select the code from a lookup list or type the relationship in the field. • If invlrshp is set to NO, the Relationship field is not coded. Users can only type the relationship in the field. 	YES/NO	NO

Parameter name and description	Explanation	Valid value or value type	Default value
killtime Max Idle Minutes Before Logout	<p>Sets the number of minutes of inactivity allowed before the software logs out users. If a user has not logged out of the system or interacted with the computer in the specified number of minutes, the system either logs off the user (if the user is in a module other than CAD) or displays the Are you sure you want to exit CAD? prompt (if the user is in CAD).</p> <p>You can set KILLTIME as both an application parameter and an environment variable. The value set in the KILLTIME environment variable overrides the value set in the killtime application parameter. Set the default value for all users in the killtime application parameter. Then, you can set a different value in the KILLTIME environment variable for a specific user or group of users. (See “KILLTIME=number of minutes” on page 128.)</p> <p>You can set the CAD_NO_KILLTIME environment variable to disable KILLTIME feature in the CAD Status screen. (See “CAD_NO_KILLTIME=yes” on page 133.)</p> <p>You can set the ECVIEW_NO_KILLTIME environment variable to disable the KILLTIME feature in the State Link ecview screen.</p>	number in range 1 to 540, or 0 to turn off killtime	300
listwarn Show warnings and alerts in Alert field	<p>Determines whether the software displays warnings and alerts or only alerts for each name in a list view.</p> <p>If you set the listwarn parameter to YES, the software displays either the highest-ranking warning or the highest-ranking alert for each name in the list. The alerts and warnings are displayed in the Alert column (following the Birth Date column).</p> <p>If you set the listwarn parameter to NO, the software displays only the highest-ranking alert for each name in the list. It does not display warnings. The alerts are displayed in the AI column (following the State column).</p>	YES/NO	NO
loghist Tables with History Records	<p>Determines whether the software creates History records for Property and Vehicle records when users modify them. If you include prmain and vhmain, the software creates a History record that preserves the unmodified data each time a Property or Vehicle record is modified. If you leave the Application Parameter Value field blank, the software ignores the loghist parameter.</p>	prmain or vhmain or both (separated by a space)	BLANK
mergfile Name Merge file location	Determines the path and filename of the Name Merge Lock file.	String (pathname)	\$FORCEDIR /tmp/nmaudit

3 General Setup Setting Up Application Parameters Common to All Modules

Parameter name and description	Explanation	Valid value or value type	Default value
mgtxtloc Put merge text in nmmerge table	<p>Determines whether name merge information is added to the Comments field on the Name record or to the Name Merge Comments table (nmmerge) when you use the Name Audit and Merge program (nmmerge) to merge duplicate Name records. The nmmerge table is viewable from the Merge field on the Names screen.</p> <p>If you set mgtxtloc to YES, the software adds the information to the Name Merge Comments table. If you set mgtxtloc to NO, the software adds the information to the Comments field on the Name record.</p> <p>If you set the mgtxtloc parameter to YES, you must add field security for the Merge field on the Names screen.</p>	YES/NO	NO
modtime Max Idle Minutes Modifying Rec	Sets the maximum number of minutes users can have active modify access to a record without making a modification. If a user selects Mod at a record and makes no modifications within the specified time, the software cancels the user out of the record.	number in range 1 to 540	15
mrxrunlev Maximum Run Level (depth)	Sets the number of levels users can run (using the Run button or function key). The original screen is the first level. There is no limit to the number of levels.	numeric	5
namesrch Last Name Search by Soundex	Determines whether the software automatically performs a soundex (sounds alike) search as well as a character search when users search by last name. It is recommended not to use with wildcard characters, as it can cause issues. Enter NO to prevent automatic soundex searches. Enter YES to implement automatic soundex searches. If your agency uses the CAD module, soundex searches can slow searches on complainant names when dispatchers add calls.	YES/NO	NO
narrpage Page Before Narratives?	Determines whether the software inserts page breaks when printing narratives. Enter NO to print narratives without any page breaks. Enter YES to insert page breaks between narratives.	YES/NO	NO
prcustag Property Custody Tags	Determines whether the software makes the same custody change to other property records with a matching tag number. Set to YES to make property changes to property items with matching tag numbers. When you make a property custody change, the software displays property records with a matching tag number. Select the check boxes for the items that you want to change and click Accept . Enter NO to not have the software display property records with a matching tag number.	YES/NO	NO

Parameter name and description	Explanation	Valid value or value type	Default value
relinci Add pr/vh Related Inci Invl	Determines whether the software creates involvements between Property or Vehicle records and associated Law Incident records.	prmain or vhmain or both (separated by a space)	BLANK
rplwmwar Multiple Offense Warning Report	Sets the contents of the warning letter report rplwmwar. Enter the contents of the warning in the Application Parameter Value field.	free text	BLANK
rpprmp Display Tap Message After Print?	Determines under what conditions the prompt press Enter to return to Spillman appears after a user uses Prt . Set rpprmp to YES to display the prompt regardless of the output device. Set rpprmp to NO to display the prompt only if the user prints to the screen. Leave rpprmp blank to display the prompt after all print jobs except when the user employs the default .r0 print format with a device other than the screen.	YES/NO/BLA NK	BLANK
showdisp Show Updated Disposition	Determines whether the software automatically updates the Disposition and Disposition Date fields in a Wanted Persons record when the warrant expires. Automatic updating is particularly useful for updating expired probations. Set showdisp to the value EXP . Then, go to the Want Disposition table (watbdisp) and make sure a record containing the following information exists: <ul style="list-style-type: none"> • Want Disposition Code: EXP • Description: Expired Probation • Active (Y/N): N For the wants Disposition field to automatically update, the parameter value <i>must</i> match the watbdisp disposition code for expired probation. If the value does not match the code, the software logs an error to an error log file (waexpupd.log) in \$FORCEDIR/log when the cron program is run.	EXP/BLANK	BLANK
showsupp Displays the Supp button on the Law Incident screen	Determines whether to display the Supp button on the Law Incident, Fire Incident, and EMS Incident screens. This allows users to access the LWSUPL table directly from the Law Incident screen. Then, multiple users can simultaneously add supplemental narratives to the incident.	YES/NO	YES
showlist Show List After Name Search	Determines whether the software automatically displays the list window when a user performs a search from the Names screen and the search finds more than one Name record. Enter YES to have the software display the list window when the software finds more than one Name record. Enter NO to have the software display the first Name record that matches the search criteria. The user can click List to view all the records in the search set.	YES/NO	NO

3 General Setup Setting Up Application Parameters Common to All Modules

Parameter name and description	Explanation	Valid value or value type	Default value
sitename Enter Your Agency Name	Sets the name of the site where the Flex is installed.	your agency's name	Spillman TUTORIAL
smtovwrt SMT Overwrite	When a user enters information in the Scars/Marks/Tattoo detail of the Names record, smtovwrt determines whether the NCIC codes for that entry automatically overwrite existing entries in the Flex-specific SMT Type , Pos , and Part fields. Set smtovwrt to YES to automatically overwrite the existing data. Set smtovwrt to NO to prompt the user with the message <i>Overwrite w/ default values?</i> . The NCIC codes are defined in the NCIC Scar/Mark/Tattoo table (nmtbnsmt).	YES/NO	NO
smtreq Requirements for SMT Fields	For the SMT detail in the Names table, determines which parts of the detail your users must fill in. The SMT detail includes one NCIC SMT field (NCIC Code) and three Flex-specific SMT fields (Type , Pos , Part). Enter A , S , B , or T as the parameter value. <ul style="list-style-type: none"> A stands for <i>any field</i>. Users need to enter data in only <i>one</i> SMT field (NCIC Code, Type, Pos, or Part). S stands for <i>Spillman value required</i>. Users <i>must</i> enter data in the NCIC code field <i>and</i> at least one other Flex-specific SMT field (Type, Pos, or Part). B stands for <i>both</i>. Users <i>must</i> enter data in both the NCIC Code field <i>and</i> the Type field. If you set up the nmtbnsmt table correctly, the software can fill in the Type, Pos, and Part fields from the NCIC Code entry automatically. T stands for <i>type or NCIC</i>. Users <i>must</i> enter data in either the NCIC Code field <i>or</i> the Type field. 	A/S/B/T	T
soundex Which Soundex Method to Use	Determines the type of soundex search used. Most agencies enter 5 , which can help geobase verification of addresses, or NY1 , which can aid last name searches.	N/NY1/5	5
uscitzn U.S. Citizen Code	Sets the code(s) for U.S. Citizen, which is used by the List of All Non U.S. Citizens report. Search the nmtbcitz table for the code(s) for U.S.Citizen, and enter the same code(s) for the uscitzn parameter.	alphanumeric	BLANK
usecasha Use Cash Accounting	Enables the Commissary and Cash Accounting modules to work together.	YES/NO	YES

Parameter name and description	Explanation	Valid value or value type	Default value
wantaka Set want involv to real name?	<p>Use the wantaka application parameter to indicate whether you want to display wanted person alerts only on the original alias Name record or on all Name records associated with that person.</p> <ul style="list-style-type: none"> Set the wantaka parameter to YES to display the wanted person alert on the person's real Name record and all associated alias Name records. Set the wantaka parameter to NO to display the wanted person alert only on the Alias name record for which the user adds the Wanted Person record. The default value is NO. <p>CAUTION: Each time you change the wantaka application parameter, regardless of whether you are setting it to YES or NO, Spillman Technical Services must update the data in your Wanted Persons table. Before you change the setting of the wantaka parameter, contact Spillman Technical Services.</p>	YES/NO	NO

3 General Setup Setting Up Application Parameters Common to All Modules

Parameter name and description	Explanation	Valid value or value type	Default value
wdtimeout Curses Times Out Partial F-Key	Determines whether the software interprets a function key command string sent via one function key as a single unit so that the network does not time out. Enter NO if you work on a network. Enter YES if you do not.	YES/NO	NO
wfcfg Workflow Configuration	<p>Determines from which screens personnel can use the Workflow Management feature. When you set the wfcfg application parameter for a certain screen, the Approval button appears on the toolbar and the Approval Status area appears at the bottom of that screen. You can also set up the software to automatically open the Workflow Approval screen by enabling the Automated Workflow feature. For information on setting up automated workflow, see “Setting the Automated Workflow feature” on page 173.</p> <p>In the wfcfg application parameter record, use the format table firstfield where:</p> <ul style="list-style-type: none"> table is the name of the table, such as nmmain for the Names screen. Be sure to use the table name, not the program name. firstfield is the name of the first field in the table, such as number in the Names screen. <p>You can also use the format table indexname where:</p> <ul style="list-style-type: none"> table is the name of the table, such as jmarrest for the Arrest screen. Be sure to use the table name, not the program name. indexname is the name of an indexed field in the table, such as booknum in the Arrest screen. indexname must be either a single field, 9 character index or a compound 9 character + sequence index. For more information, see “Setting the wfcfg application parameter” on page 172. 	BLANK or one line of text for each table for which you want to enable approval status	BLANK

Setting up system client settings

The following settings are found in the **System.Client** setting folder on the Settings Editor screen of the Administration Manager (adminutil).

Parameter	Description	Value
AdditionalShortcutKeys		string
	Additional Shortcut Keys	
	Use this setting to define additional shortcut keys for buttons on the screens. Use the formula <i>button=keycombination</i> , where <i>button</i> is the name of the button, and <i>key combination</i> is the key or keys to press. For example, to set F3 as a shortcut for the Save button, enter saveButton=F3 .	
CustomizableListResultsMax		numeric
	Customizable List Results Max	
	Determines the default number of results to show on the list screen and Involvements screen, with a value in the range 100–500. The default value is 250.	
enableVisualCues		TRUE / FALSE
	Enable Visual Cues	
	Determines whether visual cues appear on Jail screens. If visual cues are enabled, an arrow pointing to the Search button will appear when the screen is first opened, to indicate that searching needs to be completed first. The arrow fades away after a couple of seconds. The default setting is FALSE. <ul style="list-style-type: none"> Set to TRUE to enable visual cues. Set to FALSE to disable visual cues. 	
gridTypeTimeout		integer
	Grid Type Timeout	
	Determines how long the software waits for the user to be finished typing. The grid sets a timer when a user begins typing. If the user types another character before the timer goes off, the timer restarts. When the timer goes off, the grid updates the field. The default for this timer is 1000 milliseconds (1 second). Set this to a larger number to give users more time in between keystrokes as needed.	
logNotifyEvents		TRUE / FALSE
	Log Notification Events	
	Determines whether notification events are logged. The log entries are stored in the <code>events.log</code> file on the client machine. <ul style="list-style-type: none"> Set to TRUE to log notification events. Set to FALSE to not log notification events. 	
maximumSearchCount		integer
	Maximum Search Count	
	Determines the maximum number of records the software returns for any search. The default is 1,000,000.	

3 General Setup

Setting Up Application Parameters Common to All Modules

Parameter	Description	Value
pageSize		integer
	List Page Size	
	Determines the number of records displayed on one page of the list screen. The default is 10,000.	
searchPageSize		integer
	Search Page Size	
	Determines the number of records displayed on one page of search results. The default is 50.	
showFileCounts		TRUE / FALSE
	Show the Image/Files Count	
	Determines whether the count of the images/files attached to a record is displayed on screens. Disable this setting to improve server performance. <ul style="list-style-type: none"> Set to TRUE to have the software display the count of the images/files attached to a record. Set to FALSE to not have the software display the count of the images/files attached to a record. 	
ShowSentMessagesDays		numeric
	Determines whether the Sent folder is available, and how long the folder holds sent messages in the Mobile Message Center. <ul style="list-style-type: none"> To display the Sent folder, and to set the amount of time in days for the Sent folder to hold sent messages, enter a numeric value. The default value is 7. To hide the Sent folder, enter 0. 	
toolbarAllowCustomize		TRUE / FALSE
	Allow Customizing of Toolbar	
	Determines whether users can customize the toolbars. <ul style="list-style-type: none"> Set to TRUE to allow customized toolbars. Set to FALSE to prevent users from customizing the toolbars. 	
toolbarSettings		
	Not used.	
UseSearchCache		TRUE / FALSE
	Use Search Cache	
	Determines whether the software searches through previous search results before running a new search for the data. The default setting is FALSE. <ul style="list-style-type: none"> Set to TRUE to have the software search through previous search results before running a new search. Set to FALSE to not have the software search through previous search results first. 	

Adding and Changing Environment Variables for Users and Groups

Overview

For each employee in your agency, Flex runs within a specific “environment” that is defined by the settings of numerous environment variables. Following are some sample variables:

- **FORCEDLIST** specifies the directory in which to store the data files the user creates.
- **FORCEBIN** specifies the bin directories in which to search for the executable files for the Flex application.
- **SPOOLER** specifies the default printer for most of the user’s print jobs.

How a user’s environment is defined

Each time a user logs in, the operating system and the software set up that user’s environment based on information in the following files.

File	Location	Purpose
profile	/etc	<ul style="list-style-type: none"> • Sets operating system environment variables.
.profile	user’s home directory	<ul style="list-style-type: none"> • Sets environment variables that apply to the specific user. • Calls the Spillman script.
Spillman script	/usr/local/bin	<ul style="list-style-type: none"> • Sets Flex environment variables that apply to all agencies, everyone in your agency, or groups of users in your agency. • Runs the software.
force3 script	/usr/local/bin	<ul style="list-style-type: none"> • Specifies the default value for many Flex environment variables. If a required variable is not set by .profile or the Spillman script, the value from force3 is used.

Although you can set many Flex variables in either .profile or the script, Spillman Technologies recommends using .profile *only* for variables that apply to a specific user. By setting up all common variables (those used by groups or the entire agency) in the script, you make maintenance easier for yourself and you enable Spillman Technologies personnel to perform upgrades more quickly.

Running the Spillman script

You can run the script at any time by entering the following command from the operating system shell:

```
/usr/local/bin/Spillman
```

Setting up environment variables

This section describes the Flex environment variables. For each variable, it shows the proper format to use when including the variable in a script file. Following each format is a sample.

For example, the format for SHELL (the first variable listed on this page) is **SHELL=shell**. If the user's shell is ksh in the /bin directory, the statement in the script file must be **SHELL=/bin/ksh**.

You are unlikely to change many variables. A few that you might need to change are the print SPOOLER variables, EDIT, EDITOR, YREENTRY, YRDISPLAY, and the bar code variables.

After you define a variable, you must convert it into a format that UNIX and Flex can use. This is called "exporting" the variable. For instructions on exporting variables, see ["Exporting a Variable" on page 137](#).

To set up a variable for a particular group, you write a case statement in the script file. See ["Editing the Spillman Script" on page 139](#).

CAUTION

Spillman Technologies strongly recommends that you make a temporary copy of the script before making any changes. You will need the copy if you make any errors that prevent users from logging in.

Variables that name user, user shells, and user directories

SHELL=shell

SHELL=/bin/ksh

Specifies the UNIX shell to be used in executing scripts and programs. The operating system specifies this shell, and the Spillman script automatically reads the shell from the operating system.

LOGNAME=login

LOGNAME=csmith

Specifies the user. The operating system sets this variable, usually at login, and the Spillman script automatically uses the value set by the operating system.

HOME=path

HOME=/users/csmith

Specifies the path to the user's home directory. The operating system sets this variable at login, and the Spillman script automatically uses the value set by the operating system.

PATH= <i>path(s)</i>	<p>PATH=/usr/local/bin:/usr/home:/usr/bin</p> <p>Specifies the directory path that the system is to follow to locate executable (program) files. The system searches the current directory and then proceeds down the path until it finds the correct program. The PATH command in the Spillman script must list the same directories, in the same order, as the PATH command in UNIX.</p>
FORCEDIR= <i>path</i>	<p>FORCEDIR=/usr/force</p> <p>Specifies the base force program directory, in which all other program directories reside. (Notice that the bin directory, specified by the FORCEBIN variable, is a subdirectory of \$FORCEDIR.) The FORCEDIR variable must be included in the Spillman script.</p>
FORCEBIN= <i>path(s)</i>	<p>FORCEBIN=/usr/force/bin</p> <p>Specifies the bin directories for the program to use. Executable files such as the hub files are located in these directories. This variable defaults to the bin directory under the FORCE directory. The uxbn directory is the default if it exists.</p>
FORCEDLIST= <i>path(s)</i>	<p>FORCEDLIST=/usr/force/dat For new Sentryx sites: FORCEDLIST=/sti/ctreeSQLServer/live.dbs</p> <p>Specifies the directory or directories in which to store data. Usually, you specify only one directory. The ability to specify more than one is built in for Spillman Technical Services. To test the effect of an application parameter, Technical Services might specify another data directory for one user and then set that user's path to include that directory. The software uses the data directory that is listed first in the PATH command.</p>
PERLLIB= <i>path</i>	<p>PERLLIB=\$FORCEDIR/perllob:\$INDBDIR/perllob</p> <p>Specifies the path for perl to search for included functions. Do not change this variable from the value shown above.</p>
SQLDIR= <i>path</i>	<p>SQLDIR=/usr/force/sql</p> <p>Specifies the path to the Structured Query Language directory. The force3 script sets this variable to \$FORCEDIR/sql, but you can change this value in the script.</p>

Variables that define the Flex terminal emulator

TERM=termtype	TERM=cxterm Defines the Flex terminal emulator. Do not change the TERM value in the script.
TERMINFO=path	TERMINFO=/usr/indb/terminfo Specifies the path to the TERMINFO file, which contains information for the various terminal types. The TERMINFO file lets you specify information such as colors to use when running the Spillman software. This variable defaults to \$INDBDIR/terminfo, but you can change this value in the script.

Variable that defines the Flex login

SDSDISPLAY=display	SDSDISPLAY=spark:0:0 Defines the unique IP address or machine name that a user needs to log in to Flex. Also used by the External Communications's driver.
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Variables that set attributes for users screens

KILLTIME=number of minutes	KILLTIME=300 Specifies the number of minutes of inactivity allowed before the software logs out users. You can specify a value in the range of 1–540 minutes. If a user has not logged out of the system or interacted with the computer in the specified number of minutes, the system either logs off the user (if the user is in a module other than CAD) or displays the Are you sure you want to exit CAD prompt (if the user is in CAD). You can set KILLTIME as both an environment variable and an application parameter. Use the <code>killtime</code> application parameter to set the default value for all users. Then, you can use the KILLTIME environment variable to override the value set in the <code>killtime</code> application parameter for a specific user or group of users. You do not need to set up the KILLTIME environment variable. You can set the KILLTIME environment variable in either the script or a user's .profile. (For more information on setting the <code>killtime</code> application parameter, see “KILLTIME=number of minutes” on page 128).
-----------------------------------	---

You can use the `CAD_NO_KILLTIME` environment variable to disable the KILLTIME feature in the Computer-Aided Dispatch Status screen. (For more information, see [“CAD_NO_KILLTIME=yes” on page 133](#).) You can use the `ECVIEW_NO_KILLTIME` environment variable to disable the KILLTIME feature in the State Link `ecview` screen.

SCRCACHE=
number of screens

SCRCACHE=18

Specifies the number of screens to remain in memory. This variable enables quick retrieval of screens. The `force3` script sets the value to 15, but you can change the value in the `Spillman` script. The higher the number of screens, the more memory you use.

RECORDLIMIT=
number of records

RECORDLIMIT=8000

Specifies the maximum number of records that the software is to include in the viewable selection set. Users and Super Users can set the `RECORDLIMIT` environment variable to any number. However, the software can display only as many records as the computer's memory allows, and setting the `RECORDLIMIT` too high can hurt your computer's performance.

The `RECORDLIMIT` environment variable does not require setup. If you do not define the variable, the software uses the default value of 999. `Spillman Technologies` recommends that you set the environment variable above 999 only for users who regularly require a larger search capacity. Setting the value too high can negatively affect your system's performance, causing memory deficiencies and increasing the response time for searches.

You can define the `RECORDLIMIT` environment variable for all users (in the script), or you can define the variable for an individual user (in the user's .profile).

When you perform a search, the software displays the total number of records in the viewable selection set at the right end of the status line, as in `REC 1 of 1000`. To accommodate large numbers, the software displays totals of 100,000 or greater as follows:

- If the total is in the range of 100,000–999,999, the software replaces the last three digits in the total with the abbreviation `K`, as in `REC7536 of145K`.
- If the total is 1,000,000 or greater, the software replaces the last six digits in the total with the abbreviation `M`, as in `REC7536 of1M`.

If the total contains more than 14 digits, the letters `REC` are not displayed.

Variables that define user text editors

EDIT=editor	EDIT=vi Specifies the editor to be used in the terminal emulator. At installation, MicroEMACS (<code>wemacs</code>) is defined as the default text editor. The next recommendation is <code>vi</code> . Text files must be saved in ASCII text format.
EDITOR=editor	EDITOR=vi Specifies the editor to be used at the UNIX shell and in e-mail. At installation, MicroEMACS (<code>wemacs</code>) is defined as the default text editor. Spillman Technologies' next recommendation is <code>vi</code> . Text files must be saved in ASCII text format.
WEMACS=file	WEMACS="wemacs @wemacs.rc" Specifies the executable file for <code>wemacs</code> . This variable is set by the <code>force3</code> script. Do not change it from the value shown above.

Variables that define user electronic mail

MAIL=path	MAIL=/usr/spool/mail/csmith Specifies the path to the user's mailbox file. If the e-mail path is already set at the operating system level, you do not need to set it in the script. If you do set the MAIL variable in the script, set and export the MAIL variable before the <code>exec/usr/local/bin/spillman</code> line. If you prefer not to set all users' MAIL in the script, you can set each user's MAIL variable in that user's .profile.
MAILCMD=mail utility	MAILCMD=elm Specifies the mail utility to be used. The <code>force3</code> script causes this variable to default to <code>elm</code> , <code>mail</code> , or <code>mailx</code> .
MAILMSG=[message]	MAILMSG=[You have new mail] Specifies the message that is to appear when e-mail arrives.

Variables that define user printer(s)

BGSPooler= yes no	BGSPooler=yes Sets whether printing will be done in background (yes) or foreground (no). The force3 script causes this variable to default to yes , but you can change the value in the script. Use the <code>case</code> statement to set this variable.
SPOOLER= "print spooler"	SPOOLER="sds1p print1" Specifies the primary print spooler. The force3 script causes this variable to default to <code>sds1p</code> , but you can change this value in the script.
SPOOLER2= "print spooler"	SPOOLER2="sds1p print2" Specifies the secondary print spooler. The force3 script causes this variable to default to <code>sds1p</code> , but you can change this value in the Spillman script.
SPOOLERC= "print spooler"	SPOOLERC="lp -dchecks" Specifies the print spooler to use for printing checks. The force3 script causes this variable to default to <code>sds1p</code> , but you can change this value in the Spillman script. SPOOLERC is used in the Commissary Management module and the Jail Management module.
SPOOLERR= "print spooler"	SPOOLERR="lp -dreceipts" Specifies the print spooler to use for printing receipts. The force3 script causes this variable to default to <code>sds1p</code> , but you can change this value in the script. SPOOLERR is used in the Commissary Management module and the Jail Management module.
LASER=printer	LASER="lpr -dlaser" Specifies the printer to use for printing bar codes. Bar codes are used in Commissary Management.
LASERLEN=lines of bar codes per page	LASERLEN=28 Specifies the number of lines of bar codes to print per page. Commissary Management prints two columns of bar codes per page.
BARPAGES= number	BARPAGES=2

Specifies the number of pages to count as one unit when numbering barcodes. (The barcodes are numbered from left to right across each unit. [See “Commissary Management module setup” on page 187.](#)) Currently, 2 is the only number you can use.

PRINTERS=*file(s)* **PRINTERS=/sds/force/prtdef**

Specifies the printer definition file(s). This variable usually is set automatically during upgrades.

Variable that defines drive used for backups

BUDEV=tape drive **BUDEV=/dev/rnt0**

Specifies the tape drive to use for backups. If possible, the drive is the one set by the force3 script. However, you can set or change the drive in the Spillman script.

Variables that name directories and headers for reports

FORCEPRINT=
path **FORCEPRINT=/usr/force/urpt**

Specifies the directory where customized reports are found. To customize a report, copy the appropriate, existing report files from the rpt directory and then customize the copies. Never change a file in the rpt directory. [See “Creating Customized Reports” on page 290.](#)

FORCERDIR=
path(s) **FORCERDIR=/usr/force/urpt:/usr/force/rpt**

Specifies the directory or directories where standard (base) reports are found. Although usually only the rpt directory contains standard reports, the force3 script sets this variable to \$FORCEDIR/urpt:\$FORCEDIR/rpt to be sure the software can find any report you try to print.

RPTHEAD=*head* **RPTHEAD=/usr/force/rpt/RPTHEAD**

Specifies the report header for 80-column reports. This variable usually defaults to \$FORCEDIR/rpt/RPTHEAD, and you should not change it.

RPTWHEAD=*head* **RPTWHEAD=/usr/force/rpt/RPTWHEAD**

Specifies the report header for 132-column reports. This variable usually defaults to \$FORCEDIR/rpt/RPTWHEAD, and you should not change it.

FORCEPAGE=
lines

FORCEPAGE=55

Specifies the number of lines per page in a report. The default value is 60. You can set a different value in the script.

Variable for CAD

CAD_NO_
KILLTIME=yes

CAD_NO_KILLTIME=yes

Disables the KILLTIME feature for the Computer-Aided Dispatch Status screen. After you set up this variable, the software does not log users out of CAD after a certain period of inactivity. To use this environment variable, set CAD_NO_KILLTIME to **yes** in the script or the user's .profile. To re-enable KILLTIME for the CAD Status screen, remove the CAD_NO_KILLTIME environment variable. Setting the variable to **no** does not turn it off.

Variable for E911

E911DIR=path

E911DIR=\$FORCEDIR/cad

Specifies the E911 directory that Flex is to use to import data.

Variable for Development personnel

FORCEINC=/usr/fo
rce/include

This variable, which often appears in the script, is for use only by Spillman Development personnel. Do not change or delete this variable.

Variables for two-digit entry and display of year information

In Flex, users can enter any year as four digits. In addition, they have the option of entering years in a certain range as two digits. The software also displays years in a certain range as two digits.

Flex includes two environment variables, YREENTRY and YRDISPLAY. These variables let you define the circumstances under which your agency allows two-digit year entry and two-digit year display.

**Data types
affected by
YRENTY and
YRDISPLAY**

The YRENTY variable affects the entry of year information that is stored as one of the following data types:

- Date (08/20/1998)
- Time-Date (04:30:00 08/20/1998)
- Integer (1998)

The YRENTY variable does not affect the entry of years **ending in 00** that are stored as an Integer data type. In this case, you must use four-digit year entry. For example, to enter **2000** in a **Vehicle Year** field, you must enter **2000**, not simply **00**.

The YRDISPLAY variable affects the display of year information that is stored as one of the following data types:

- Date (08/20/1998)
- Time-Date (04:30:00 08/20/1998)

The YRDISPLAY variable does not affect the display of year information that is stored as an Integer display type. For example, the integer field **Vehicle Year** is always displayed using four digits.

NOTE

The current year is displayed as two digits in the upper right corner of all menus. YRDISPLAY does not affect this display.

YRENTY=x

The format for setting the YRENTY environment variable is:

YRENTY=x

With the YRENTY environment variable, you have the following choices.

Set	To
x to -1	Disallow two-digit entry of years, forcing users to enter all years as four digits.

Set	To
x to 100	Allow two-digit entry only for years in the current century. In the 21 st century, users can enter the year 2006 as either 06 or 2006 but can enter the year 1998 only as 1998 .
x to a number in the range 0–99	Allow two-digit entry only for years in the 100-year period that began x years ago. <ul style="list-style-type: none"> For example, if the current year is 2001 and you want to allow two-digit entry of the 100-year period that began in 1901, use YREENTRY=99 because 1902 was 99 years ago. Because the software bases its calculation on the current year, it can automatically shift the range each year. If, in 2001, you set the beginning year as 1902 (99 years before the current year, as in the previous example), then, in 2005, the range becomes 1906–2005.

YRDISPLAY= x[,y]

The format for setting the YRDISPLAY variable is:

YRDISPLAY=x[,y]

With the YRDISPLAY environment variable, you have the following choices.

Set	To
x to -1	Display all years as four digits. <ul style="list-style-type: none"> This value can be used with any YREENTRY value.
x to 100	Display as two digits any year that is in the current century. <ul style="list-style-type: none"> This value can be used when YREENTRY is 100.
x to a number in the range 0–99 and y to a number in the range 0–99	Display as two digits any year in the period that started x years ago and that ends y years from now. For example, if the current year is 2001 and you want years in the range 1921–2003 to be displayed as two digits, use YRDISPLAY=80,2 . <ul style="list-style-type: none"> By basing its calculations on the current year, the software automatically shifts the range each year. This value can be used only when YREENTRY is a number 0–99. The range of years set by YRDISPLAY must be within the range of years set by YREENTRY. An invalid value causes the software to use YREENTRY=90 and YRDISPLAY=-1.

The “Examples” section shows sample settings for both YREENTRY and YRDISPLAY.

**Defaults for
YREENTRY and
YRDISPLAY**

If you do not define YREENTRY and YRDISPLAY, the software uses **YREENTRY=90** and **YRDISPLAY=75,2** so that the implementation matches earlier versions of the software. In the year 2000, the range of years for two-digit entry is 1910–2009 and the range of years for two-digit display is 1925–2002.

Error conditions

If you use an invalid value, or you define one variable but not the other, the software uses **YREENTRY=90** and **YRDISPLAY=-1**. The range for two-digit year entry is the same as in earlier versions of the software, but the software displays all years as four digits. Year information always displaying as four digits indicates that you might have omitted a value or used an invalid value.

Examples

To permit only four-digit year entry and to display all years as four digits, set:

```
YREENTRY=-1  
YRDISPLAY=-1
```

To permit two-digit entry only for years in the current century and to display only years in the current century as two digits, set:

```
YREENTRY=100  
YRDISPLAY=100
```

To permit two-digit entry only for years in the current century and to display all years as four digits, set:

```
YREENTRY=100  
YRDISPLAY=-1
```

In the year 1998, to permit two-digit entry of years in the range 1950–2049 and to display only 1998 and 1999 as two digits, set:

```
YREENTRY=48  
YRDISPLAY=0,1
```


Exporting a Variable

Once a variable is defined, it must be exported to UNIX and Spillman. You can export the variable on the same script line as you define it, separating the two statements with a semicolon (;), as shown in the following examples:

- `TERMINFO="$indbhome/terminfo";export TERMINFO`
- ```
if [0"$SPOOLERR" = 0];then
 SPOOLERR="$receipt; export SPOOLERR
fi
```

Or, you can export the variable on a separate line, as shown in the following examples:

- ```
TERMINFO="$indbhome/terminfo"
export TERMINFO
```
- ```
if [0"$SPOOLERR" = 0]; then
 SPOOLERR="$receipt
export SPOOLERR
fi
```

## Checking Settings of Variables

Users who have `sh` (shell) privileges can check the settings of their environment variables by following the instructions in this section. Refer to the *Security Setup and Maintenance Manual*, for instructions on setting your users' security privileges.

### Viewing all variables

To check the settings of all your own environment variables, use the following procedure:

1. Log in to the software.
2. Enter **sh** at the command line to shell out to UNIX.
3. At the `$` prompt, enter one of the following `env` commands:

```
env|more
env|pg
```

Each of the above commands displays the variables one screen at a time.

4. Press SPACEBAR to view the next "page" of variables.

**Viewing one  
variable**

To check the setting of one of your environment variables, use the UNIX `echo` command. For example, to view the `SPOOLER` setting, enter the following command:

```
echo $SPOOLER
```

## Editing the Spillman Script

This section outlines the procedure for editing the Spillman script, tells how some commands in the script work (for SAAs not yet familiar with the programming symbols and statements used in the script), and describes specific statements you might need to change or add.

Use the following procedure to edit the Spillman script:

1. Log in to UNIX as root so that you have the permissions necessary to edit the Spillman script.
2. At the operating system prompt, enter the following command to load the script for editing with the MicroEMACS (`wemacs`) text editor:

```
wemacs /usr/local/bin/spillman
```

### NOTE

The first time you edit the Spillman script, you must use the MicroEMACS (`wemacs`) text editor because it is defined as the default editor for the UNIX shell. Refer to [“Spillman Technologies supplies the following text editors with Flex:” on page 481](#), for instructions on using the MicroEMACS editor. While editing the script, you can specify a new, default text editor by changing the value of the `EDITOR` variable. (Spillman Technologies’ next recommendation is the `vi` editor.) You can use the new editor after saving the script file and restarting the software.

3. Edit the script as needed.
4. Exit the editor, saving the edited Spillman script as an ASCII file in its original directory.
5. Instruct users to log out of the software and log in again. Changes that you make to the Spillman script take effect when you restart the software.

## Becoming familiar with the Spillman script

This section is provided for SAAs who are not yet familiar with the programming symbols and statements used in the Spillman script. If this information is new to you, please read the entire section before editing the script.

### Comment (#) lines

Some lines in the Spillman script begin with a pound sign (#). The pound sign tells the software not to execute the line but to consider it as a comment only. The following section of script is an example:

```
SPOOLERR SPOOLERC case
if [0"$SPOOLERR" = 0 -o 0"$SPOOLERC" = 0]; then
case $LOGNAME in
user1 | user2 | user3 | user4)
receipt="sdslp one"
check="sdslp two"
;;
user5 | user6 | user7 | user8 | user9 | user10 | \
user11 | user12 | user13)
check="sdslp three"
receipt="sdslp four"
;;
*)
;;
esac
if [0"$SPOOLERR" = 0]; then
SPOOLERR="$receipt"; export SPOOLERR
fi
if [0"$SPOOLERC" = 0]; then
SPOOLERC="$check"; export SPOOLERC
fi
fi
```

The first line in the preceding sample (# SPOOLERR SPOOLERC case) is a true comment. Its only purpose is to remind you and the programmer that the coming section of script is a case statement that defines the variables SPOOLERR and SPOOLERC.

Other lines preceded by pound signs are executable statements that Spillman has “commented out” so that the software does not execute them. You can edit these statements as needed, substituting real user names and printer names, and then delete the pound signs to make the statements executable.

Following is a script you might have after substituting real user login names for user1, user2, user3, . . . and real printer names for one, two, three, and four. This sample:

- makes the sdslp printer the default **check** and **receipt** printer for csmith, bjones, bthomas, and amorgan
- makes the sdslp jail printer the default **check** printer for mbrown, jlondon, jmadden, sholmes, lturner, twoods, nbates, wsherman, and jwayne
- makes the sdslp office printer the default **receipt** printer for the same nine users

```
SPOOLERR SPOOLERC case
if [0"$SPOOLERR" = 0 -o 0"$SPOOLERC" = 0]; then
```

```
case $LOGNAME in
 csmith | bjones | bthomas | amorgan)
 receipt="sdsdp receipt"
 check="sdsdp check"
 ;;
 mbrown | jlondon | jmadden | sholmes | lturner | twoods | \
 nbates | wsherman | jwayne)
 check="sdsdp jail_chk"
 receipt="sdsdp office"
 ;;
 *)
 ;;
esac
if [0"$SPOOLERR" = 0]; then
 SPOOLERR="$receipt"; export SPOOLERR
fi
if [0"$SPOOLERC" = 0]; then
 SPOOLERC="$check"; export SPOOLERC
fi
fi
```

## Print groups

A print group consists of multiple users assigned to the same printer. When creating a print group, you can include everyone in an established UNIX group (by specifying the group ID) or you can list individual users (by specifying user logins).

### Assigning an entire UNIX group to the same printer(s)

Suppose you have the following user groups, to whom you want to assign printers as shown.

| Group Name      | User ID of Group | Primary Printer | Secondary Printer |
|-----------------|------------------|-----------------|-------------------|
| Admin           | 320              | sdsdp laser     | sdsdp adminprntr  |
| Disp            | 440              | sdsdp lpr       | sdsdp lp2         |
| Fire            | 500              | sdsdp fireprntr | sdsdp lp1         |
| Civil           | 600              | sdsdp laser     | sdsdp lp0         |
| (everyone else) | —                | sdsdp lpr       | sdsdp lp2         |

The following script sets the primary and secondary printers for each group. For everyone who is not in a group, the script assigns the default printers (sds1p 1pr and sds1p 1p2).

# This section checks for the group id and sets it to be tested  
# in the case statement to assign spoolers by group.

```
gid=`id | awk '{print $2}' | sed 's/^.*gid=\\(.*\\)(.*\\/1/'`
echo "
 `id`
 Group id = $gid
"
sleep 2
SPOOLER case
if [0"$SPOOLER" = 0 -o 0"$SPOOLER2" = 0]; then
 case $gid in
 440) # disp
 one="sds1p 1pr"
 two="sds1p 1p2"
 ;;
 500) # fire
 one="sds1p fireprntr"
 two="sds1p 1p1"
 ;;
 600) # civil
 one="sds1p laser"
 two="sds1p 1p0"
 ;;
 320) # admin
 one="sds1p laser"
 two="sds1p adminprntr"
 ;;
 *) # default
 one="sds1p 1pr"
 two="sds1p 1p2"
 ;;
 esac
 if [0"$SPOOLER" = 0]; then
 SPOOLER=$one; export SPOOLER
 fi
 if [0"$SPOOLER2" = 0]; then
 SPOOLER2=$two; export SPOOLER2
 fi
fi
echo "
 Primary Printer = $SPOOLER
 Secondary Printer = $SPOOLER2
"
sleep 2
```

**Assigning  
individual users to  
the same printer(s)**

When listing individual users, separate their login names with a pipe symbol (|) and end the list with a close parenthesis ()). If the list of users extends over multiple lines, end each line of the list (except the last line) with a backward slash (\) as shown:

```
mbrown | jlondon | jmadden | sholmes | lturner | twoods | \
nbates | wsherman | jwayne)
 check="sdsdp jail_chk"
 receipt="sdsdp office"
```

You can also break a large print group into multiple, smaller print groups and assign each of these smaller groups to the same printer. The following script provides an example:

```
mbrown | jlondon | jmadden | sholmes | lturner | twoods | \
nbates | wsherman | jwayne)
 check="sdsdp jail_chk"
 receipt="sdsdp office"
;;
alincoln | epresley | mangelou | cripen | kmalone | \
jbond | bfavre)
 check="sdsdp jail_chk"
 receipt="sdsdp office"
;;
```

**The if statement**

By itself, a print group is only a list. To have any effect, it must be part of an executable case statement that, in turn, must be part of an executable if statement, in the script. The complete SPOOLERC SPOOLERR case sample is repeated here so that you can see this easily:

```
SPOOLERR SPOOLERC case
if [0"$SPOOLERR" = 0 -o 0"$SPOOLERC" = 0]; then
 case $LOGNAME in
 csmith | bjones | bthomas | amorgan)
 receipt="sdsdp receipt"
 check="sdsdp check"
 ;;
 mbrown | jlondon | jmadden | sholmes | lturner | twoods | \
 nbates | wsherman | jwayne)
 check="sdsdp jail_chk"
 receipt="sdsdp office"
 ;;
 *)
 ;;
 esac
 if [0"$SPOOLERR" = 0]; then
 SPOOLERR="$receipt"; export SPOOLERR
 fi
 if [0"$SPOOLERC" = 0]; then
 SPOOLERC="$check"; export SPOOLERC
 fi
fi
```

An `if` statement, sometimes called `if-then`, tells the software to take a specific action only if the results of a given test are `TRUE`. For example, the first `if` statement in the preceding example tells the software to make the `sdsdp` printer the default check and receipt printer only if the results of the first `case` statement are true. Each `if` statement ends with a `fi` statement.

### The case statement

Case statements are variations of `if` statements that are used when several `ifs` are required in a row. Each `case` statement causes certain commands to be executed in *that case in which a certain pattern exists*. In the Spillman script, case statements are a convenient means of defining environment variables—printers and text editors, in particular—for various users and user groups.

Case statements must conform to the following, very specific syntax:

```
case string in
 pattern1) commands ;;
 pattern2) commands ;;
 pattern3) commands ;;
esac
```

The first line of the `case` statement must contain three elements:

- the keyword `case`
- the `string` (a set of characters) to match
- the keyword `in`

The `esac` command ends the `case` statement.

### How the case statement works

In the sample under “[The if statement](#)” on page 143, the first `if` statement allows the software to set `SPOOLERC` and `SPOOLERR` variables if they are not yet set:

1. If `SPOOLERC` and `SPOOLERR` are not set, then Flex executes the `case $LOGNAME in` statement. This statement causes Spillman to look for the user’s name in the first print group listed.

If the first print group contains the user’s name, the variables `receipt` and `check` are set to the values following the equal signs (`sdsdp receipt` and `sdsdp check`). Then, the `;;` statement causes the software to exit from the `case` statement and execute the next two `if` statements (the statements following `esac`).

If the first group does not contain the user’s name, then the software looks for the user’s name in the second print group.



2. If the second print group contains the user's name, the variables `receipt` and `check` are set to the values following the equal signs (`sdslp jail_chk` and `sdslp office`). Then, the `;;` statement causes the software to exit from the `case` statement and execute the next two `if` statements (the statements following `esac`).

If the second print group does not contain the user's name, the software goes to the `*)` statement. This is a `case` statement that defines the printer to be used by all users not listed in any print groups.

**NOTE**

If you do not want a printer selected for users who are not in a print group, comment out the lines between `*)` and `;;`.

3. The `if` statements export variables `SPOOLERR` and `SPOOLERC` to the shell so that you can access them inside the software.

## Assigning users to printers

You have several options when assigning printers. You can assign them according to UNIX group or individual user login, as already explained under [“Print groups” on page 141](#). You can even let users choose a printer from a menu. This section provides a sample script for each method. For an easier way to let users select a printer, see [“Allowing Users to Select Their Work Environments” on page 147](#).

**Letting everyone use a printer**

The following script makes the `sdslp` printer the default check and receipt printer for everyone:

```
SPOOLERR="sdslp receipt"
export SPOOLERR
SPOOLERC="sdslp checks"
export SPOOLERC
```

**Letting a UNIX group use a printer**

The following script makes the `sdslp` printer the default check and receipt printer for the Jail group (Group ID 440):

```
gid=`id | awk '{print $2}' | sed 's/^. *gid=\(.*\)(.*\/1/'`

SPOOLERR SPOOLERC case
case $gid in
 440) # jail
 SPOOLERR="sdslp receipt"
 SPOOLERC="sdslp checks"
 ;;
 *) # default
 ;;
```

```
esac
export SPOOLERR SPOOLERC
```

#### **Letting specific users use a printer**

The following script makes the sdsdp printer the default check and receipt printer for csmith, bjones, bthomas, and amorgan:

```
SPOOLERR SPOOLERC case
if [0"$SPOOLERR" = 0 -o 0"$SPOOLERC" = 0]; then
 case $LOGNAME in
 csmith | bjones | bthomas | amorgan)
 receipt="sdsdp check"
 check="sdsdp receipt"
 ;;
 *) # default
 ;;
 esac
 if [0"$SPOOLERR" = 0]; then
 SPOOLERR="$receipt"; export SPOOLERR
 fi
 if [0"$SPOOLERC" = 0]; then
 SPOOLERC="$check"; export SPOOLERC
 fi
fi
```

To add a print group, copy the commands for an existing print group and insert these commands between the `case` and the `*)` commands. Change user and printer names as needed. For example, copy and edit these lines:

```
csmith | bjones | bthomas | amorgan)
 receipt="sdsdp check"
 check="sdsdp receipt"
 ;;
```

## Allowing Users to Select Their Work Environments

By setting up Spillman decisions scripts, you can let a user or a group of users select certain environment variables, such as the primary printer, while starting Flex

The Spillman decision scripts control some environment variables that were defined in the Spillman script in version 2.0 (or in the Spillman script in the software). The Spillman decision scripts are easier to use and give you greater flexibility than you get when you edit the script. Any variable defined by a Spillman decision script will override the same variable defined by the Spillman script.

### NOTE

Any variable defined in the software or Spillman script works, *as long as you do not create a Spillman decision script to override that variable*. Suppose you use the Spillman script to define the default printer for a group of users and you want to retain that variable after upgrading to Flex. To retain the variable, do not create a Spillman decision script to set the default printer for that group of users.

You still need to define certain variables, such as `FORCEDLIST`, `FORCEPFILE`, and `FORCEDIR`, in the Spillman script. For more information about the Spillman script, see [“Editing the Spillman Script” on page 139](#).

## Overview

Use the System Environment Setup screen (`syenv`) to create Spillman decision scripts. The following illustration shows a `syenv` record.

The screenshot shows the `syenv` System Environment Setup window. It contains the following fields and values:

- Number:** 10
- (U)ser/(G)roup/(W)orld:** U
- User ID/Group ID/World (0):** 3002 <train2>
- IP Address/Machine Name:** (empty)
- Configuration Type:** PP (Please Set your Primary Printer)
- Prompt User(s) on Login:** Y
- Configuration Values:** DEF (Default)

Annotations on the left side of the image point to the **Configuration Type** field and the **Configuration Values** field.

In the preceding example, the value in the **Configuration Type** field tells the software to display a dialog box when user 3002 (`train2`) starts Flex. The dialog box asks the user to set a primary printer.



The **Configuration Values** field tells the software the choices to display in the dialog box.

By selecting a printer from the list, the user selects a configuration. You can set up a configuration to set more than one environment variable. For example, if the user selects `West building laser` as the primary printer, the software might also set the `West building mail printer` as the user's printer for UNIX mail.

To set up decision scripts:

1. Define the building blocks that you can use to build the script, as described in [“Defining the building blocks for decision scripts” on page 149](#).
2. Define the actual scripts, as described in [“Setting up decision scripts” on page 153](#).

3. Enable the Set Environment Variables program, as described in [“Enabling the Set Environment Variables program” on page 161.](#)

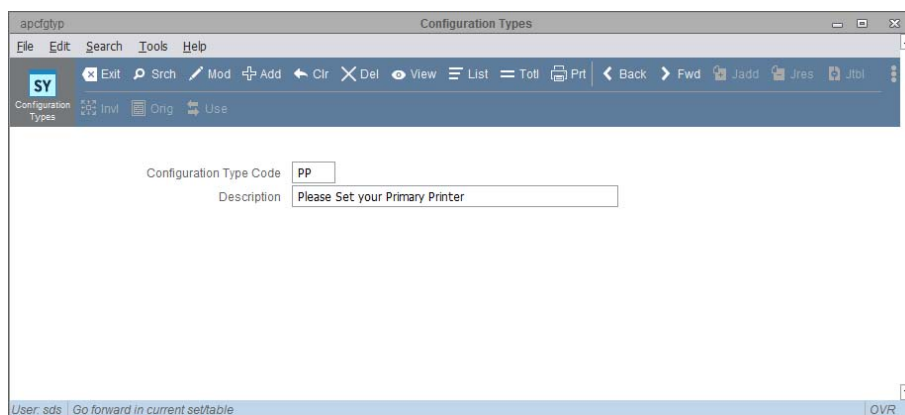
## ***Defining the building blocks for decision scripts***

Before you can add a decision script in the System Environment Setup table, you must define the building blocks to be used by the script. You define these building blocks in four new code tables. The building blocks are:

- **Configuration types.** The type of scripts (such as a script for selecting the primary printer) you can create. A configuration type determines the dialog box that is to appear on the screen and specifies the text that is to appear in that dialog box, such as `Please select your primary printer.` See [“Configuration Types \(apcfgtyp\)” on page 150.](#)
- **Configurations.** Options that you can include in a decision script. For example, a single configuration might specify one printer as the primary printer and a different printer as the mail printer. If you include a configuration in a decision script, the software displays the configuration value to the user. See [“Configuration Names \(apenvcfg\)” on page 152.](#)
- **Environment variables.** Specific settings that you can include in a configuration. For example, one environment variable might set the primary printer and another might set the mail printer. See [“Environment Variable Name \(apenvnam\)” on page 151.](#)
- **Environment variable values.** Values that you can tie to an environment variable. For example, you might add an environment variable value for each of your agency’s printers. See [“Environment Variable Values \(apenvval\)” on page 151.](#)

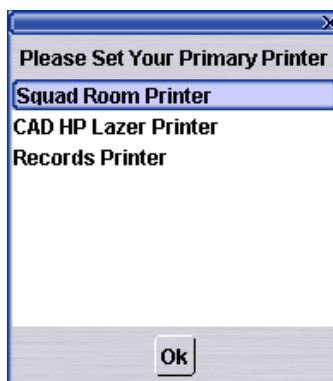
### Configuration Types (apcfgtyp)

In the Configuration Types code table, define the types of configurations that are available to users. The following configuration type lets users set their primary printer.



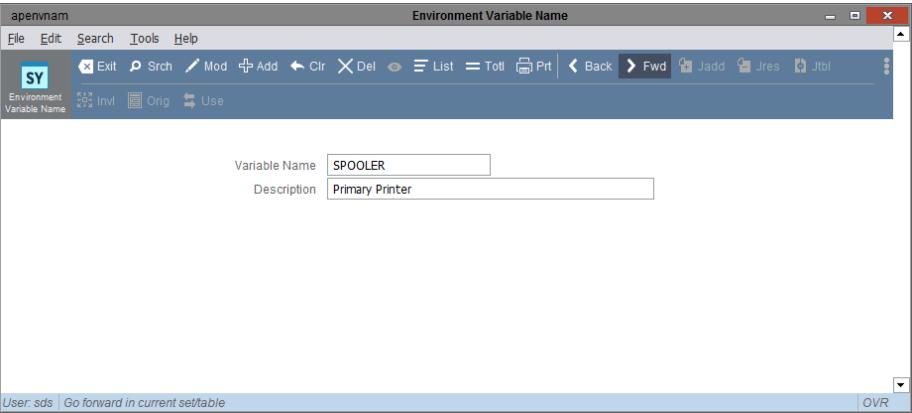
The screenshot shows the 'apcfgtyp Configuration Types' window. It has a menu bar with 'File', 'Edit', 'Search', 'Tools', and 'Help'. Below the menu is a toolbar with icons for Exit, Search, Modify, Add, Clear, Delete, View, List, Total, Print, Back, Forward, Jadd, Jres, and Jtbl. The main area contains a table with two columns: 'Configuration Type Code' and 'Description'. The first row has 'PP' in the code column and 'Please Set your Primary Printer' in the description column. At the bottom, there is a status bar that says 'User: sds Go forward in current settable' and a button labeled 'OVR'.

It displays a dialog box asking the user to choose the primary printer. In the **Description** field, enter the text that you want the software to display in that dialog box.



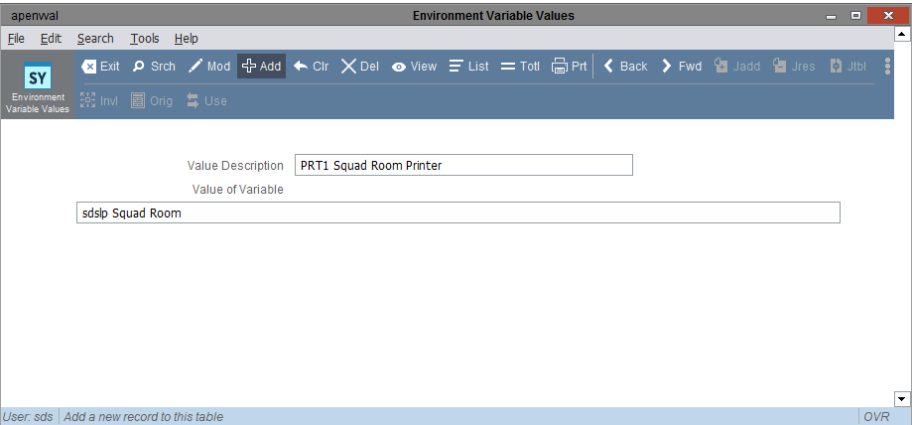
Environment Variable Name (apenvnam)

In the Environment Variable Name code table, enter a code for each environment variable that you want to set. The following environment variable tells the software to set the primary printer.



Environment Variable Values (apenvval)

In the Environment Variable Values code table, define the values to which you can set an environment variable. For example, add a record for each printer that is available on your agency’s network. The following example shows the code for a particular printer.



To make it easier for you to select a value in this code table, you might group the variables that you enter. For example, for printers enter **PRT** at the beginning of the value description.

### Configuration Names (apenvcfg)

In the Configuration Names code table, define the configurations that you can include in a single decision script. This code table allows you to set up a configuration so that the software sets multiple environment variables when a user selects a particular value. For example, if a user selects a particular printer as the primary printer, the software might automatically set the user's mail printer to the same printer or a different printer.

The following record instructs the software to also set the `Records Printer` as the `SPOOLER2` (mail printer), if a user selects the `Squad Room Printer` as the primary printer.

The screenshot shows the 'apenvcfg Configuration Names' window. It has a menu bar with File, Edit, Search, Tools, and Help. Below the menu is a toolbar with buttons for Exit, Srch, Mod, Add, Del, View, List, Totl, and Prt. There are also navigation buttons: Back, Fwd, Jadd, Jres, and Jtbl. The main area contains three input fields: 'Configuration Code' with the value 'PRT1', 'Description' with the value 'Squad Room Printer', and 'Environment Variables' with two values: 'SPOOLER' and 'PRT1 Squad Room Printer'. At the bottom, there is a status bar that says 'User: sds Add a new record to this table' and a button labeled 'OVR'.

You can enter any value, such as the name and description of a printer, in the **Configuration Code** and **Description** fields.

When you click **Detail** (Ctrl+N) at the **Environment Variables** field, the following window appears.

The screenshot shows the 'apdtcfg Environment Configuration Detail' window. It has a menu bar with File, Edit, Search, Tools, and Help. Below the menu is a toolbar with buttons for Exit, Mod, Add, Del, View, List, Totl, and Prt. There are also navigation buttons: Back, Fwd, Jadd, Jres, and Jtbl. The main area contains a table with the following data:

| Seq | Environment Var | Value                   |
|-----|-----------------|-------------------------|
| 1   | SPOOLER         | PRT1 Squad Room Printer |

At the bottom, there is a status bar that says 'User: sds Add a new detail record' and a button labeled 'OVR'.

Click **Add**. In the **Environment Var** field, select the environment variable, such as `SPOOLER`, that you want this configuration to set. The **Environment Var** field is coded to the Environment Variable Name (apenvnam) code table.



In the **Value** field, select a value for the environment variable. The **Value** field is coded to the Environment Variable Values (apenvval) code table.

## Setting up decision scripts

After you define the configurations and environment variables, you can create scripts for particular users or groups. For an example of how to set up scripts, see [“Setting up decision scripts” on page 155](#).

To create a decision script:

1. Use one of the following methods to open the System Environment Setup screen:
  - Type **syenv** at the command line, and press Enter.
  - At the Main Menu, select **System Maintenance Menu**. Then, select **Setup and Security Menu**. Then, select **System Environment Setup**.

The System Environment Setup screen appears.

2. Click the **Add** button. The software enters a record number in the **Number** field.
3. In the **(U)ser/(G)roup/(W)orld** field, enter **u** if the script is for a user, **G** if the script is for a group of users, or **w** if the script is for all users (the world). For an explanation of how Spillman prioritizes syenv records, see [“How the software prioritizes syenv records” on page 154](#).

4. In the **User ID/Group ID/World (0)** field, either enter the user or group ID or, if the script applies to all users, enter **0**. Click the Lookup button (Ctrl+E) to select from a list of users or groups.
5. To make the script available on one PC only, enter the IP address or the machine name of that PC in the **IP Address/Machine Name field**. Leave the field blank to make the script available on all PCs on which Spillman is installed.
6. In the **Configuration Type** field, enter the configuration type that you want this script to run. Click the Lookup button (Ctrl+E) to select from the values you entered in the Configuration Types (apcfgtyp) code table. See “Configuration Types (apcfgtyp)” on page 150.
7. In the **Prompt User(s) on Login** field, enter **Y** to prompt the user to select an option. Enter **N** to not prompt the user. If you enter **N**, the software automatically selects the first variable listed in the **Configuration Values** field.
8. In the **Configuration Values** field, enter one or more of the environment variables that you defined in the Configuration Names code table (apenvcfg). See “Configuration Names (apenvcfg)” on page 152. To enter more than one variable, click **Detail** (Ctrl+N) to open the detail window.
9. After you finish entering information for the decision script, click **Accept** (Alt+A).

### How the software prioritizes syenv records

Use the following table to determine how the software uses the System Environment Setup (syenv) records you add. For example, be aware that a syenv record for a particular user overrides a syenv record for a group that includes that user.

When a user logs on to Flex, the software searches the System Environment Setup table (syenv) for any records that match the user’s login. The software prioritizes those records as follows and uses the record that has the highest priority (the highest number).

| If the ID type is | And the IP address or machine name is | Then the record priority is |
|-------------------|---------------------------------------|-----------------------------|
| World             | Blank                                 | 1 (lowest)                  |
| Group             | Blank                                 | 2                           |
| User              | Blank                                 | 3                           |

| If the ID type is | And the IP address or machine name is | Then the record priority is |
|-------------------|---------------------------------------|-----------------------------|
| World             | Defined                               | 4                           |
| Group             | Defined                               | 5                           |
| User              | Defined                               | 6 (highest)                 |

## Setting up decision scripts

This section shows how to set up a sample decision script. For this example, suppose that:

- Your agency wants to set up decision scripts that ask users to choose a primary printer.
- Most of your users belong to one of the following groups: CAD, Records, and Jail.
- As the SAA, you want to give these groups printer options as follows.

| User group | Available printers |
|------------|--------------------|
| CAD        | PRT1, PRT2         |
| Records    | PRT2, PRT3, PRT4   |
| Jail       | PRT5, PRT6         |

- You want to assign all other users (except yourself) to the main laser printer (PRT1).
- When a member of the CAD, Records, or Jail group selects a primary printer, you want the software to select the printer for that user's UNIX mail.

### 3 General Setup

#### *Allowing Users to Select Their Work Environments*

To set up decision scripts for this scenario:

1. In the Configuration Types code table (apcfgtyp), add the Primary Printer code.

Configuration Types

Configuration Type Code: PP

Description: Please Set your Primary Printer

User: sds Go forward in current settable OVR

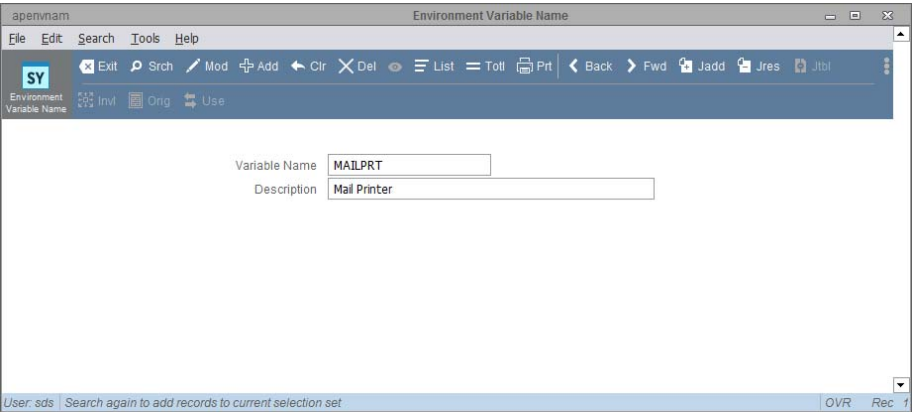
2. In the Environment Variable Name code table (apenvnam), add the SPOOLER and MAILPRT codes.

Environment Variable Name

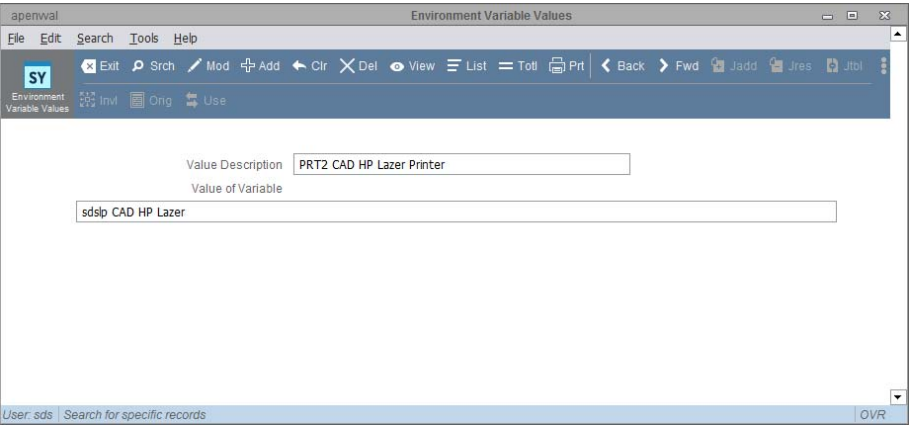
Variable Name: SPOOLER

Description: Primary Printer

User: sds Go forward in current settable OVR



3. In the Environment Variable Values code table (apenvval), add a code for each printer. The following example shows one code.



4. In the Configuration Names code table (apenvcfg), add a code for each printer. In each record, specify the primary printer and the mail printer. The following example shows one code.

The screenshot shows the 'apenvcfg Configuration Names' window. It has a menu bar (File, Edit, Search, Tools, Help) and a toolbar with icons for Exit, Srch, Mod, Add, Clr, Del, View, List, Toll, Prit, Back, Fwd, Jadd, Jres, Jtbl. The form contains the following fields:

- Configuration Code: PRT1
- Description: Squad Room Printer
- Environment Variables: SPOOLER, PRINTER VALUE
- MAILPRT: West Mail Printer

At the bottom, it says 'User: sds | Add a new record to this table' and 'OVR'.

The Configuration Name record tells the software that when a user selects the Squad Room Printer as his or her primary printer, the software must also select the West Mail Printer as the user's mail printer.

To add more than one record in the Environment Variables detail field, click **Detail** (Ctrl+N) to open the detail window.

The screenshot shows the 'apdtcfg Environment Configuration Detail' window. It has a menu bar (File, Edit, Search, Tools, Help) and a toolbar with icons for Exit, Srch, Mod, Add, Clr, Del, View, List, Toll, Prit, Back, Fwd, Jadd, Jres, Jtbl. The form contains a table with the following data:

| Seq | Environment Var | Value                   |
|-----|-----------------|-------------------------|
| 1   | SPOOLER         | PRT1 Squad Room Printer |
| 2   | MAILPRT         | West Mail Printer       |

At the bottom, it says 'User: sds | Add a new detail record' and 'OVR'.

5. In the System Environment Setup table (syenv), add a record that lets the CAD group use PRT1 and PRT2 as the primary printer.

syenv

System Environment Setup

File Edit Search Tools Help

System Environment Setup

Exit Srch Mod Add Clr Del View List Totl Prt Back Fwd Jadd Jres

Orig Use

Number

11

(U)ser/(G)roup/(W)orld

G

User ID/Group ID/World (0)

1

[staff]

IP Address/Machine Name

Configuration Type

PP

Please Set your Primary Printer

Prompt User(s) on Login

Y

Configuration Values

PRT1

Squad Room Printer

PRT2

CAD HP Lazer Printer

User: sds Go back in current settable

OVR

6. In the same table, add a record that lets the Records group use PRT2, PRT3, and PRT4 as the primary printer.

syenv

System Environment Setup

File Edit Search Tools Help

System Environment Setup

Exit Srch Mod Add Clr Del View List Totl Prt Back Fwd Jadd Jres

Orig Use

Number

12

(U)ser/(G)roup/(W)orld

G

User ID/Group ID/World (0)

4

[adm]

IP Address/Machine Name

Configuration Type

PP

Please Set your Primary Printer

Prompt User(s) on Login

Y

Configuration Values

PRT2

CAD HP Lazer Printer

PRT3

Records Printer

PRT4

JailR Receipt Printer

User: sds Go forward in current settable

OVR

### 3 General Setup

#### Allowing Users to Select Their Work Environments

7. In the same table, add a record that lets the Jail group use PRT4 and PRT5 as the primary printer.

The screenshot shows the 'syenv System Environment Setup' window. The 'Number' field is 13. The '(U)ser/(G)roup/(W)orld' field is 'G'. The 'User ID/Group ID/World (0)' field is '150' with a '[force]' label. The 'IP Address/Machine Name' field is empty. The 'Configuration Type' is 'PP' with a prompt 'Please Set your Primary Printer'. The 'Prompt User(s) on Login' field is 'Y'. Under 'Configuration Values', 'PRT4' is selected as 'JailR Receipt Printer' and 'PRT5' is listed as 'Civil Check Printer'. The status bar at the bottom indicates 'User: sds | Go forward in current setttable' and 'OVR'.

8. In the same table, add a record that lets you use all printers.
9. In the same table, add a record that lets other users (the world) use PRT1. Enter **N** in the **Prompt User(s) on Login** field.

The screenshot shows the 'syenv System Environment Setup' window. The 'Number' field is 14. The '(U)ser/(G)roup/(W)orld' field is 'W'. The 'User ID/Group ID/World (0)' field is '0' with a '(World)' label. The 'IP Address/Machine Name' field is empty. The 'Configuration Type' is 'PP' with a prompt 'Please Set your Primary Printer'. The 'Prompt User(s) on Login' field is 'N'. Under 'Configuration Values', 'PRT1' is selected as 'Squad Room Printer'. The status bar at the bottom indicates 'User: sds | Modify the current record' and 'OVR'.



## Enabling the Set Environment Variables program

To let all users change environment variables after they start Flex, enable the Set Environment Variables (setenv) program.

1. Open the Program/Menu Definition table (syppgm).
2. Add a record similar to the following.

The screenshot shows the 'syppgm' window titled 'Program/Menu Definition'. The window has a menu bar with 'File', 'Edit', 'Search', 'Tools', and 'Help'. Below the menu bar is a toolbar with icons for 'Exit', 'Srch', 'Mod', 'Add', 'Clr', 'Del', 'View', 'List', 'Totl', 'Prt', 'Back', 'Fwd', 'Jadd', 'Jres', and a vertical ellipsis. The main area contains the following fields:

- Program/Menu Name:
- Executable Containing Program/Menu:
- Program Description:
- Items in This Menu (None if program is not a menu):
- Menus This Program Appears In:

At the bottom of the window, there is a status bar that reads 'User: sds | Go back in current settable' and a button labeled 'OVR'.

For more information about the Program/Menu Definition table, see [“Changing or Adding a Menu” on page 281](#).

## Creating a Startup Message

You can create a message (Message of the Day) that is visible to all users as they start Flex.

### NOTE

The Message of the Day does not display when users launch Mobile.

To set up the software to display a startup message:

1. At the command line, type **apparam** and press Enter to open the Application Parameters table.
2. Click the **Add** button.
3. In the **Application Parameter Name** field, enter **motd**.
4. In the **Parameter Description** field, enter a description of the parameter, such as **Message of the day**.
5. In the **Application Parameter Value** field, enter the message that you want the software to display. You can click **Editor** to use the text editor. To enter text from an existing document, such as a memo, copy the text to the Windows clipboard and then paste it into the text editor.

Your parameter might look like the following sample.

The screenshot shows the 'apparam' application window titled 'Application Parameters Table'. It features a menu bar (File, Edit, Search, Tools, Help) and a toolbar with various icons. The main area contains three input fields: 'Application Parameter Name' with the value 'motd', 'Parameter Description' with the value 'Message of the Day', and 'Application Parameter Value' with the value 'Reminder: Please check the new dispatcher schedules.' The bottom status bar indicates 'User: sds' and 'Search again to add records to current selection set'.

6. Click **Accept** (Alt+A) to save the application parameter record.

The software displays the same message until you enter a new message or delete the application parameter.

## Configuring Flex to display the Message of the Day

In order for the Message of the Day to appear, you must configure your software to display the message.

To configure your software to display the Message of the Day:

1. From the command center, open **File > Configure**.

The Configuration screen opens.

2. Open the **General Settings** tab.
3. Select the **Show Today Screen on Startup** check box.
4. Click **Save**.

The software displays the Message of the Day each time that you launch Flex.

### NOTE

If you have set up your software to automatically launch Message Center when you open your Spillman software, the Message of the Day is displayed in Message Center instead of in Flex.

## Modifying the Message of the Day

To change the startup message:

1. Open the apparam table, and search for the motd application parameter.
2. Click the **Mod** button.
3. Enter the new message in the **Application Parameter Value** field.
4. Click **Accept** (Alt+A) to save your changes.

## ***Creating User Dictionaries for the Text Editor***

The Spillman installation program installs a default user dictionary called `userdict.tlx` in the Flex folder of each PC. Any words added to that user dictionary are available only on that PC. However, you can create a user dictionary for your agency and copy it to the PCs on your network. Such a dictionary might contain names that are commonly used by your agency's personnel.

If you create more than one user dictionary on a PC, the spelling checker uses all available dictionaries to check the spelling in a document.

To create an agency-specific dictionary:

1. Start Flex on one PC.
2. Enter the desired words in the user dictionary on that PC.
3. Copy the dictionary file to the Flex folder on another PC.

You can replace the default user dictionary file, or you can enter a different name for the new dictionary, such as `agencydict.tlx`. Make sure the name ends with the `.tlx` file extension.

## Setting Up the File Capture Feature

The File Capture feature allows users to attach any kind of file in the Windows file system to a record in tables in the software. You can use the File Capture feature to store, organize, and access files (for example, photographs, audio recordings, documents) and attach them to a particular record. You can use the File Capture feature to:

- Protect files with improved security.
- Attach files through the Menu bar or the File icon on the toolbar.
- Attach multiple files using a drag-and-drop operation.

### Conversion to Sentryx

The management of File Capture data has changed in Sentryx. Previously, the `aftrtdir` setting specified a single base directory for all of File Capture. Spillman Sentryx uses a new configuration parameter named `dirdesc`. One significant advantage is that `dirdesc` can be different for each agency. If your agency is a multi-agency site, this helps you better deal with storage demands.

### Adding settings and application parameters

In the Settings table of the Administration Manager, set up the following settings as needed:

| Parameter                    | Description                                                                                                                                                                                                                                                                                                                                                                                    | Value                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <code>defaultDir</code>      |                                                                                                                                                                                                                                                                                                                                                                                                | Directory Setup module |
|                              | Default Directory                                                                                                                                                                                                                                                                                                                                                                              |                        |
|                              | Sets the code (from the <b>Directory Setup</b> module) to be used as the default directory for file capture. This setting tells the software which directory is used to store files attached to records. You can set the <code>defaultDir</code> setting differently for various agencies if your system is shared with other agencies.                                                        |                        |
| <code>defaultFileType</code> |                                                                                                                                                                                                                                                                                                                                                                                                | File Types module      |
|                              | Default File Type                                                                                                                                                                                                                                                                                                                                                                              |                        |
|                              | Sets the code (from the <b>File Types</b> module) to be used as the default File Type code when adding a file capture. Set this value if your agency wants the software to select a default file capture type in the <b>Default File Type</b> area on the File Capture: Import Files screen for your users or group of users. Users are able to select other file capture types, if necessary. |                        |

In the Application Parameters table (apparam), set up the following application parameter as needed.

| Parameter name and description | Explanation                                                                                                                                                                                                                                                                                                                 | Valid value or value type                                                                                                                                                                                                                                                                                                                                                                                                                                  | Default value |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| aftables                       | <p>Serves two purposes:</p> <ul style="list-style-type: none"> <li>Lets you specify all the tables to which users can attach files. The software makes the <b>Files</b> button visible (available) on all the tables you specify.</li> <li>Lets you name a custom base directory for any table that you specify.</li> </ul> | <p>A line of text for each table. Each line has the following format:</p> <pre>table firstfield custompath</pre> <p>where:</p> <ul style="list-style-type: none"> <li>table is the name of the table, such as <b>nmmain</b> for the Names table</li> <li>firstfield is the name of the first field in the table, such as <b>number</b> in the Names table</li> <li>custompath (optional) is the path to the custom base directory for the table</li> </ul> | BLANK         |

## Determining who can add locks to attached files or documents

In the System Privileges screen, you can use the `lockfiles` privilege to determine who can add locks to files or documents attached to a record. The `lockfiles` privilege also lets you determine who can modify and read locked files. See the *Security Setup and Maintenance Manual* for information on system privileges. The Online Help tells users how to lock an attached file if they have the necessary privileges.

## Set up your default file directory

You can set up a default file directory that the software will automatically display when a user attempts to attach a file.

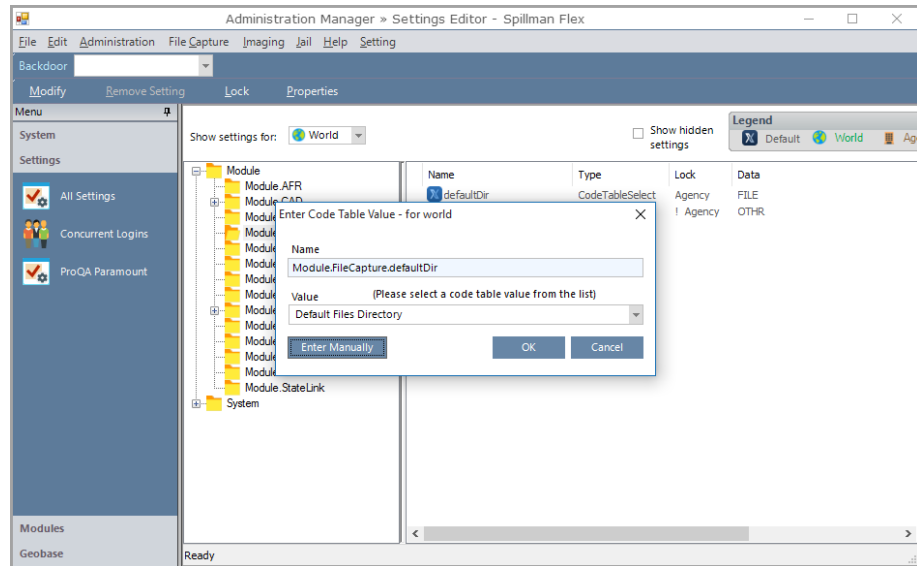
To set a default file capture directory:

1. From the command line, enter **adminutil**, or from the menu bar, select **Administration > Administration Manager**.

The Administration Manager opens.

2. On the Explorer menu, open the **Settings** menu group, and select the **All Settings** menu item.
3. Select *Agency* in the **Show settings for** field.
4. Select your agency from the drop-down list.

5. Select **Module > Module.FileCapture** folder.
6. Double-click **defaultDir**.
7. In the **Value** field, select the preferred default directory. This field references the Directory Setup module. See [“Setting up a directory” on page 104](#).



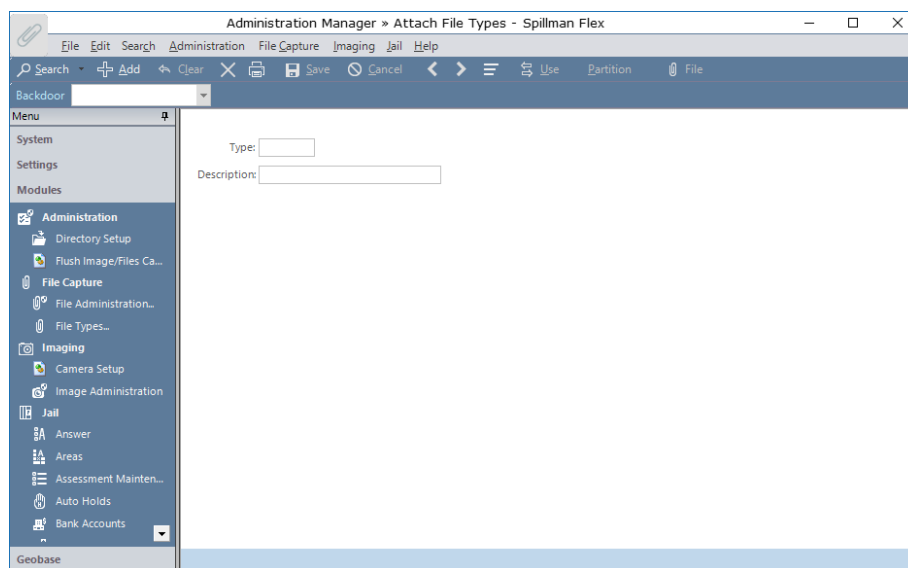
8. Click **OK**.

## Setting up File Capture types

You can use the Administration Manager to set up file types that your agency uses. For example, you can set up file types for evidence reports, witness statements, or crime scene photographs. The file types that you create are referenced when a user attaches files to a record.

Create file types and descriptions for use with the File Capture module. Access the Attach File Types screen by selecting **Administration** menu > **Administration Manager** > **Modules** menu group.

1. With the **Modules** menu group open, click the **File Types** menu item, located under File Capture. The Attach File Types screen opens.



2. Click the **Add** button. Enter the required information in the Type and Description fields.
3. Click **Save** or press Ctrl+S.

## File Capture administration

The software allows administrators to view and modify File Capture record descriptions, links, and other information. For example, if a file has been moved to a different directory so that the File Capture record does not link to a record (broken link), an administrator can modify the filename and directory as necessary to link to the correct file.

Access the File Capture Administration screen by selecting **Administration** menu > **Administration Manager** > **Modules** menu group.

To view and modify File Capture records:

1. With the **Modules** menu group open, click the **File Administration** menu item, located under File Capture.



The File Capture screen opens.

2. Enter the search information to locate the record you want to view or modify. Click **Submit**.
3. View or modify the record information.
4. If you modify the record, click **Save** or press Ctrl+S.

#### NOTE

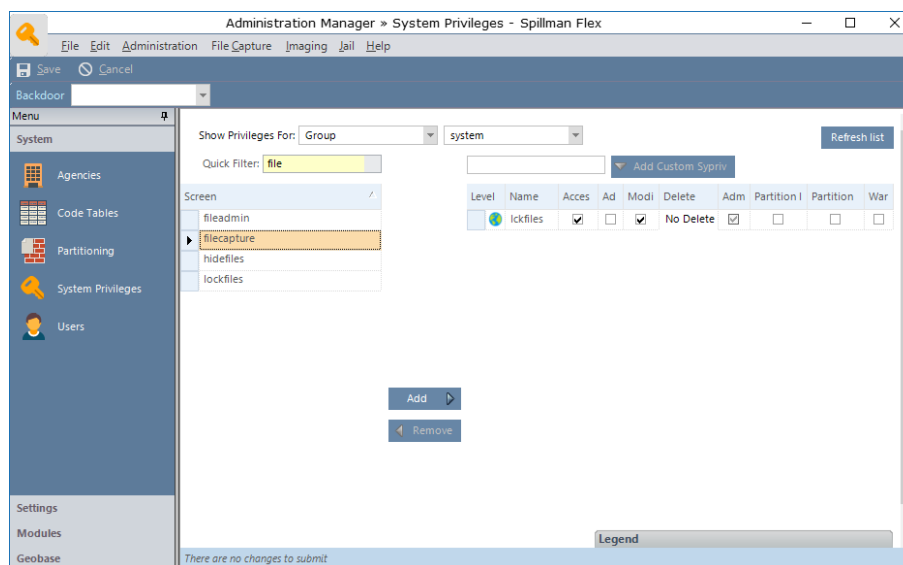
If a check mark appears in the Broken Link check box (1), you can reattach the file to the proper record by typing in the correct file name.

## File Capture privileges

To manage file capture privileges in System Privileges:

1. From the **Administration Manager** screen, click on **System** menu group in the Explorer menu.
2. Click **System Privileges**.
3. Select **Agency** or **Group** in the **Show settings for** field.
4. Enter **file** in the **Quick Filter** field.

5. Select **filecapture** from under the screen heading.



6. Click **Add**.

7. Select the privileges you wish to manage.

#### NOTE

In addition to the `filecapture` system privilege, users need Modify or Partition In privileges for the specific screen to be able to add file attachments. For example, a user would need Modify or Partition In privileges for `inmate` in order to attach files through the Inmate screen. Additionally, if the record is partitioned users will need Modify or Partition In privileges for the partition to be able to attach files to the record. For more information, see the *Security Setup and Maintenance Manual*.

## Setting Up the Workflow Management Feature

The Workflow Management feature allows individual officers, their supervisors, and records clerks to track the approval status of records.

The `wfcfg` application parameter determines from which screens personnel can use the Workflow Management feature. When you set the `wfcfg` application parameter for a certain screen, the **Approval** button appears on the toolbar and the **Approval Status** area appears at the bottom of that screen, as in the following sample.

The screenshot displays the 'Law Incident Table' application window. The top toolbar includes buttons for Exit, Search, Modify, Add, Delete, View, List, Total, Print, Back, Forward, Jadd, Jres, Jtbl, and a dropdown menu with Parth, Pswd, Run, Map, and Approval. The 'Incident' section shows fields for Incident Number (0110-0004), Nature (Theft-Automobil), Case Number, Address (215 S CROWN ST), City (Springfield), State (ND), ZIP (79134), and Area (LSE). The 'Complainant' section shows fields for Numbr (12), Last (Smith), DOB (09/07/66), SSN (211-23-3333), Fst (Tomas), Mid (Ira), Race (L), Sx (M), Tel ((256)555-9875), Adr (415 GERRARD DR), City (Springfield), ST (ND), and ZIP (79134). The 'Details' section shows fields for Statute Codes, Offense Codes (TVAU, NARC), Circumstances (LT03, BM88, WPILL), Rspndg Officers (B Pratt), Rspnsbl Officer (B Pratt), Received By (D Gordon), Agency (SPD), CAD Call ID (C004), Last RadLog (07:55:56 10/29/01), Clearance (CI), Cleared by Investigator, When Reported (10:47:42 10/29/01), Disposition (CAA), Disp Date (10/30/01), Occurr between (00:00:00 10/29/01), and Judicial Sts (PSP). The 'Narrative' section shows fields for Narrative (Springfield City Police Department) and Supplement (This vehicle entered into NCIC). The 'Approval Status' area at the bottom shows fields for Approval Status, To, From, Date, and History.

In addition to the `wfcfg` application parameter, you must set certain privileges and set up workflow status configurations before users can use the Workflow Management feature. You can also set up the software to automatically generate a Workflow Approval Status record when a Law Incident record contains a specific clearance code.

## Setting the wfcfg application parameter

To set the `wfcfg` application parameter in the Application Parameters table (`apparam`), enter one line of text for each table for which you want to enable approval status.

Use the format `table firstfield` where:

- `table` is the name of the table, such as `nmmain` for the Names screen. Be sure to use the table name, not the program name.
- `firstfield` is the name of the first field in the table, such as `number` in the Names screen.

To find the table name and the name of the first field in any screen, open that screen and right-click in the first field. A shortcut menu appears, displaying the information in the following format: `field=table.field`

To find the table name in any Classic screen, you can also move your cursor to the field you want to learn more about and press F1, then 4. This displays more information about the field, including the field name and whether the field is indexed.

You can also use the format `table indexname` where:

- `table` is the name of the table, such as `jmarrest` for the Arrest screen. Be sure to use the table name, not the program name.
- `indexname` is the name of an indexed field in the table, such as `booknum` in the Arrest screen. `indexname` must be either a single field, 9 character index or a compound 9 character + sequence index.

For example, on the `jmarrest` screen, the first field is `arstnum`, but if you like, you can use the `booknum` index instead, which is not the first field on the screen

Following is a sample value for `wfcfg`:

```
nmmain nmmain.number
```

```
lwmain lwmain.number
```

```
acmain acmain.number
```

The preceding example tells the software to display the **Approval Status** area and the **Approval** button on the following screens: Names (`nmmain`), Law Incident (`lwmain`), and Accident (`acmain`).\

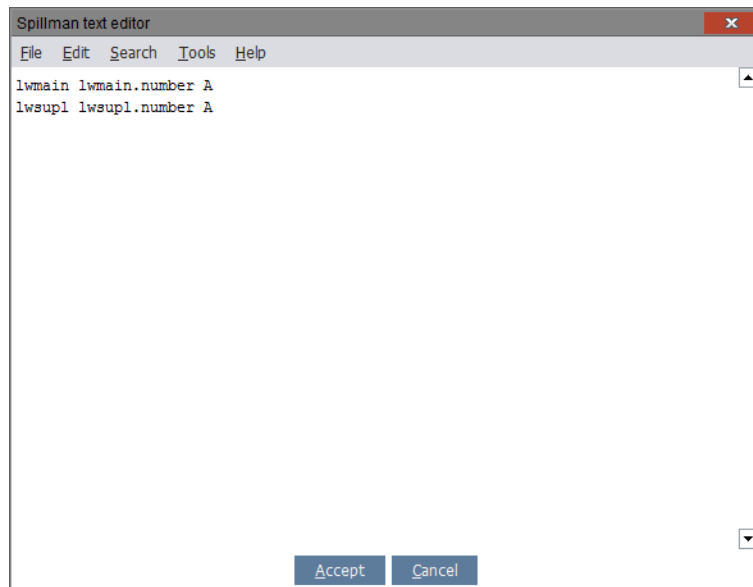
## Setting the Automated Workflow feature

You can set up the software to automatically initiate the addition of Workflow records after a user adds records by using the Automated Workflow feature. When a user adds a record that has the Automated Workflow feature enabled, the Workflow Approval screen will automatically open after adding a record, instead of having to click the **Approval** button. The user can then choose to complete the record or click **Cancel**.

To enable automated workflow:

1. When adding `wfcfg` entries, enter a space and an **A** after any table entry for which you want to enable automated workflow.

For example, to enable automated workflow for the Law Incident table and the Law Incident Supplemental Narrative detail table, you would make the following `wfcfg` entries.



2. Once you have enabled automated workflow for all the desired tables and detail tables, click **Accept**.

### NOTE

The Workflow Approval screen will open for Detail tables once the Workflow record for the primary record is accepted or canceled. For example, the Law Incident Supplemental Narrative detail table will open the Workflow Approval screen after the Law Incident Workflow record has been accepted or canceled.

## Setting privileges for the Workflow Management feature

To allow a user to use the Workflow Management feature, you must grant Access privileges for the `mdcmdlworkflow` privilege for that user. When the `mdcmdlworkflow` privilege is set, the **Approvals** and **Group** folders appear in the Message Center.

Grant Access privileges for the `mdcadmworkflow` privilege for each supervisor. When the `mdcadmworkflow` privilege is set, the **Supervisor** folder appears in the Message Center.

See the *Security Setup and Maintenance Manual* for more information on setting user privileges.

## Setting up workflow status configurations

Workflow status configurations determine the approval steps each record must go through before it is complete. These steps can vary by agency and table.

To set workflow status configurations:

1. Enter **wfstatpcf** at the command line.

The Workflow Status Configurations screen opens, and the software enters the next sequential Workflow Status Configuration number in the **Number** field.

2. In the **Agency** field, enter the agency to which the configuration applies.
3. In the **Table** field, enter the table to which the configuration applies.
4. In the **Status Code Sequence** area, click the **Detail** button (Ctrl+N) and add the following information for each workflow status detail record:
  - **Seq.** Determines the order of the status detail records. The software enters the next sequential record number when you add a new detail record. You can change the value in this field if necessary.
  - **Abbr.** Enter the abbreviation for the workflow status (for example, **RVW** for Review).
  - **Description.** Enter the description of the workflow status. For example, if the workflow status abbreviation is **RVW**, enter **Review** for the description.
  - **Action.** Enter the action code associated with the workflow status. If a workflow status signifies that a record is open (incomplete),

enter **1** in this field. If the workflow status signifies that a record is closed (complete), enter **0** in this field.

- **Next Status.** Enter the next workflow status that must be completed (for example, **COMPLT** for Complete).
- 5. Click **Accept** (Alt+A) to add the detail record(s) to the Workflow Status Configuration record.
- 6. Click **Accept** (Alt+A) again to save the Workflow Status Configuration record.

### ***Setting up automatically generated approval status messages***

The **Generate workflow** option is on the Law Incident Clearance Codes screen (lwccode). If you set this option to **Yes** for a particular clearance code, the software generates a Workflow Approval Status record for the responsible officer when a user closes a CAD call with a designated clearance code.

## ***Adding Your Agency Logo to .X Reports***

To include your agency's logo at the top of .X reports:

1. Create a JPG (.jpg) file of your agency's logo.
2. Name the JPG file, using the following format:

`agency_code.jpg`

where `agency_code` is the code for your agency. For example, if your agency code is SPD, name the JPG file `SPD.jpg`.

3. Place the JPG file in the `$FORCEDIR/uxsl` directory on the server.



## Adding Customized Sounds

To add Waveform Audio File Format (.wav) sound files to the software, place them in the **Custom** folder under the **Sounds** folder in your software's directory. The sounds are available to Flex users the next time they log in to the software.

To add custom sounds in CAD:

1. Navigate to the following directory:

\$SPILLMANDIR\sounds\custom

### NOTE

If the **Custom** folder does not exist, then add it within the **Sounds** folder.

2. Add the WAV sound files to the **Custom** folder.
3. Log out, and then log back in.
4. At the command line, enter **CAD** to open CAD and sync the changes to your client.
5. To set the sound in CAD, from the menu bar, select **File > Configure**.  
The Configuration screen opens.
6. Select the **CAD Alerts** tab.
7. In the field for the desired alert, select the sound to play from the drop-down list.
8. Click **Save** to save your changes and close the Configuration screen.

## Setting Up CJIS Compliance

If your agency is Criminal Justice Information Services (CJIS) compliant, Spillman Technologies provides the tools to maintain CJIS compliance.

### CAUTION

The new default concurrent login setting includes access controls that limit concurrent logins within the Flex system. Therefore, be aware that the new default behavior has changed.

For information on setting up your Flex system to be CJIS compliant, or disabling CJIS compliance features, [see “CJIS Compliance Setup” on page 429](#).

## Setting Up the eSign Feature

The eSign feature is used to electronically capture signatures and automatically attach signed documents to Flex records, helping agencies move toward a paperless record-keeping system.

eSign can be used with any Topaz brand reader, including USB connection models and Bluetooth connection models, or a Flex-compatible touchscreen device.

eSign can be used throughout Flex with certain modules for certain reports or receipts. For more information about how to use eSign in Flex, see the *RMS User Manual*.

### Setting up system settings

To use the eSign feature, the following settings must be set up in the Administration Manager (adminutil) under the **System.Client** folder.

| System setting       | Description                                                                                                                                                                                                                                                                                                                                     | Value      |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| TouchScreenSignature |                                                                                                                                                                                                                                                                                                                                                 | True/False |
|                      | Capture Signatures with Touchscreen Devices                                                                                                                                                                                                                                                                                                     |            |
|                      | Determines whether electronic signatures can be captured using Flex-compatible touchscreen devices. <ul style="list-style-type: none"><li>Set to <b>TRUE</b> to enable the use of touchscreen devices to capture signatures.</li><li>Set to <b>FALSE</b> to disable the use of touchscreen devices. The default value is FALSE.</li></ul>       |            |
| OfficerSignature     |                                                                                                                                                                                                                                                                                                                                                 | True/False |
|                      | Store Officer Signatures                                                                                                                                                                                                                                                                                                                        |            |
|                      | Determines whether electronic signatures can be captured and stored on apnames records for later use. <ul style="list-style-type: none"><li>Set to <b>TRUE</b> to enable the capture and storage of these signatures.</li><li>Set to <b>FALSE</b> to disable the capture and storage of these signatures. The default value is FALSE.</li></ul> |            |

#### NOTE

Topaz brand readers do not require any additional setup in Flex for the eSign feature. Install the Topaz reader according to the manufacture's instructions, and then start Flex. The Signing Window screen opens automatically for those reports and receipts that are signature-capture enabled. If a Topaz reader and a touchscreen device are both detected, then the software defaults to using the Topaz reader.

## Capturing user signatures for apnames records

If desired, each user's electronic signature can be attached to their Official Names Codes table (apnames) record. When the document requires a user's signature, instead of signing, they enter their login password, and the software attaches the signature from the apnames record to the document. Only the user currently logged in to Spillman can use their saved signature.

To add or modify a signature file for an apnames record:

1. At the command line, enter **apnames** to open the Official Names Codes screen.
2. Search for the record to which to attach the signature.

**Signature button** →

3. With the record open, click the **Signature** button.  
The Signing Window screen opens.
4. Instruct the user of the apnames record to sign.
5. Do one of the following:
  - If the signature is acceptable, click **Accept and Save**.
  - If the signature is unacceptable and needs to be recaptured, click **Clear**.
  - To cancel the signature capture, click **Cancel**.

# Chapter 4

---

## *Module Setup*

|                                  |     |
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| Introduction                     | 182 |
| Barcode Scanning Module Setup    | 183 |
| Finding Other Module Information | 187 |

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## Introduction

This chapter provides information you will need to set up individual modules, except for the CAD module and the Jail Module. For instructions on setting up the CAD module, see the *CAD Administrator Manual*. For instructions on setting up the Jail module, see the *Sentryx Jail Administrator Manual*.

In this chapter, the modules are listed alphabetically.

For most modules, you must complete the following tasks:

1. Set up the common settings (application parameters) in the Application Parameters table (apparam).

If you have not already done this task, see [“Setting Up Application Parameters Common to All Modules”](#) on page 112.

2. Add or modify common codes as needed.

If you have not already done this task, refer to the *Code Table Setup and Maintenance Manual* for a complete list of common code tables and instructions on adding and modifying codes.

3. In apparam, set up the settings (application parameters) required by the specific module.

This chapter describes the settings (application parameters) required by each module.

4. Add or modify, as needed, the codes required by the individual module.

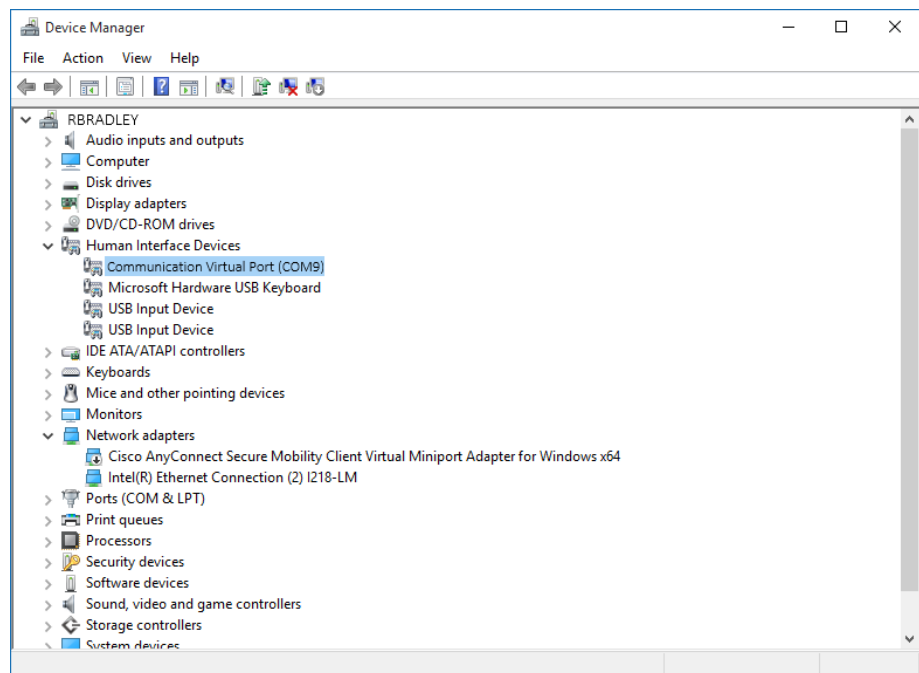
Refer to the *Code Table Setup and Maintenance Manual* for instructions and a list of code tables.

For some modules, you must complete several other setup tasks. For example, you might need to modify application cue cards that the module uses, or you might need to set up other modules that work with the given module. Check this chapter to make sure you perform all the tasks required.

## Barcode Scanning Module Setup

The following procedure explains how to set up the Flex bar code scanner using the LS4278 model scanner.

1. Attach the barcode scanner to the client machine that you want to use to gather scanned data.
2. Run the Symbol COM Port Emulation Driver v1.8.5.exe to set up the driver for COM Port emulation with Symbol Barcode scanners.
3. Scan the codes from the [“Spillman Barcodes Setup” on page 185](#) to set your scanner to use the Flex application. If you make an error, start over.
4. On the machine attached to the barcode scanner, open the **Device Manager**.  
  
Open the Device Manager by selecting **Start > Control Panel > System > Hardware tab > Device Manager** button.
5. Expand the Human Interface Devices tree menu and locate **Communication Virtual Port (COM <#>)**.



6. Write down the COM Port designation. In the example, the port designation is COM9.

7. Run BarcodeScanner.exe to set up the application COM Port reference. Flex is required.
8. Set the COM Port to the correct value. In the example, the COM Port would be set to COM9.

#### Changing the COM Port

To change the COM Port:

1. Open the Device Manager by selecting **Start > Control Panel > System > Hardware tab > Device Manager** button.
2. Expand the Human Interface Devices tree menu and locate **Communication Virtual Port (COM <#>)**.
3. Right-click the **Communication Virtual Port**.
4. Select **Properties > Port Settings tab > Advanced** button.
5. Select the new port. Make sure that the port number matches the port indicated in the Spillman client.

#### Barcode Scanner Options

Spillman bar coding works with Symbol Barcode scanners that support COM Port emulation. This includes:

- All models made after March 2006.
- All models ending in an 8. For example, LSxxx8, or DSxxx8.
- All models using a USB synapse, STI85-0200.

The Spillman software also supports any non-Symbol scanner that allows sending a suffix as the end of each scanned barcode and provides a COM Port emulation or can be directly attached to a COM Port.



## Spillman Barcodes Setup

Scan the barcode on the cradle.

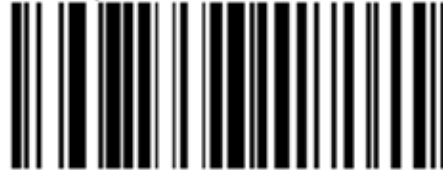
Scan the **Factory Defaults** barcode (1) to set the scanner back to the factory settings.

SET FACTORY DEFAULTS



Scan the **Scan Options** barcode (2) to tell the scanner that you are changing the scanning option.

Scan options



Scan the **<Data><Suffix>** barcode (3) to indicate that you are sending the data "as is" with the addition of a suffix character.

<Data><Suffix>



Scan the **Enter** barcode (4) to indicate the end of the scan options change.

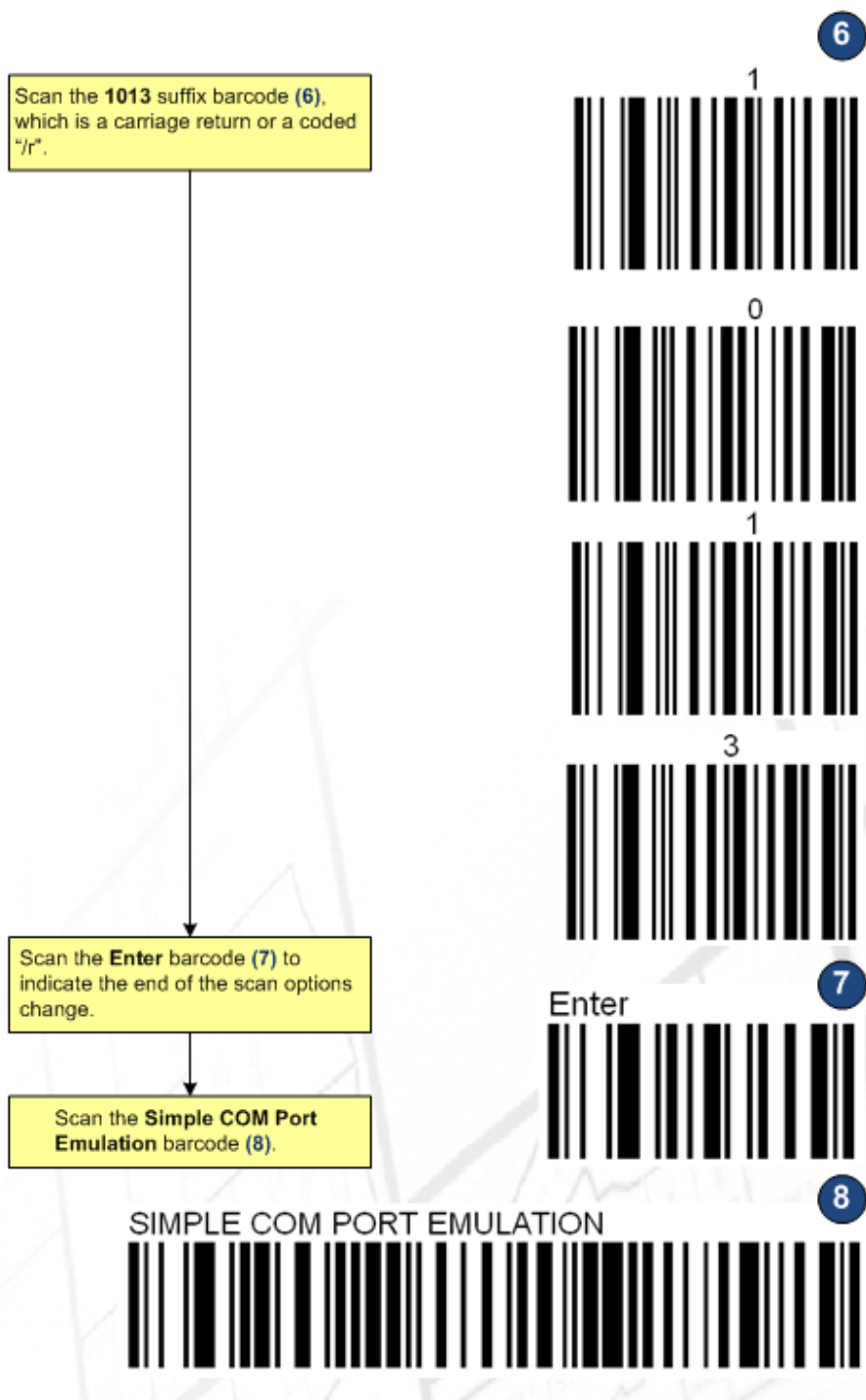
Enter



Scan the **Scan Suffix** barcode (5) to get ready to scan the new suffix.

Scan Suffix





## ***Finding Other Module Information***

This section lists where information on other modules can be found.

### ***Civil Process module setup***

The setup information for the Civil Process module can be found in the *Civil Process Manual*.

### ***Commissary Management module setup***

The setup information for the Commissary Management module can be found in the *Commissary Management Manual*.

### ***E9-1-1 CAD setup***

The setup information for the E9-1-1 CAD module can be found in the *E9-1-1 Interface Manual*.

### ***EMS Records Management module setup***

The setup information for the EMS Records Management module can be found in the *EMS Records Management Manual*.

### ***Equipment Maintenance module setup***

The setup information for the Equipment Maintenance module can be found in the *Equipment Maintenance Manual*.

### ***Evidence Management module setup***

The setup information for the Evidence Management module can be found in the *Evidence Management Manual*.

### ***Fire Records Management module setup***

The setup information for the Fire Records Management module can be found in the *Fire Records Management Manual*.

### ***Fleet Maintenance module setup***

The setup information for the Fleet Maintenance module can be found in the *Fleet Maintenance Manual*.

### ***Imaging module setup***

The setup information for the Imaging module can be found in the *Imaging Manual*.

### ***InSight module setup***

The setup information for the InSight module can be found in the *InSight Manual*.

### ***Inventory Management module setup***

The setup information for the Inventory Management module can be found in the *Inventory Management Manual*.

### ***Law Enforcement Records Management module setup***

The setup information for the Law Enforcement Records Management module can be found in the *Law Enforcement Records Management Manual*.

### ***Licenses and Permits module setup***

The setup information for the Licenses and Permits module can be found in the *Licenses and Permits Manual*.

### ***Pawned Property module setup***

The setup information for the Pawned Property module can be found in the *Pawned Property Manual*.

### ***Personnel Management module setup***

The setup information for the Personnel Management module can be found in the *Personnel Management Manual*.

### ***Premises Information module setup***

The setup information for the Premises Information module can be found in the *Premises Information Manual*.

### ***Schedule Management module setup***

The setup information for the Schedule Management module can be found in the *Schedule Management Manual*.

### ***Traffic Information module setup***

The setup information for the Traffic Information module can be found in the *Traffic Information Manual*.

### ***Vehicle Impound module setup***

The setup information for the Vehicle Impound module can be found in the *Vehicle Impound Manual*.



# Chapter 5

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## ***CAD Module Setup***

|                       |     |
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| Application Cue Cards | 193 |

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## ***Introduction***

The setup information for the CAD module can be found in the *CAD Administrator Manual*.



## Application Cue Cards

For the CAD module, you can define application cue cards for the following field. For instructions, see [“Setting up application cue cards” on page 105](#) and [“Maintaining Application Cue Cards” on page 285](#).

| Table             | Field Prompt | Key for Accessing Cue Cards |
|-------------------|--------------|-----------------------------|
| ac window (calls) | Info         | cdcdesc.comnt               |



# Chapter 6

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## ***Setting Up CAD to Recommend Units***

Introduction 196

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## ***Introduction***

The setup information for recommended units in the CAD module can be found in the *CAD Administrator Manual*.

# Chapter 7

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## ***Sentryx Jail Module Setup***

Introduction 198

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## ***Introduction***

The setup information for the Jail Management module can be found in the *Sentryx Jail Administrator Manual*.

# Chapter 8

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## ***Classic Jail Module Setup***

**Introduction 200**

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## ***Introduction***

The setup information for the Classic Jail Management module can be found in the *Spillman Classic Jail Administrator Manual*.



# Chapter 9

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## ***Installing, Configuring, and Maintaining Flex on a Client Computer***

|                                          |     |
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| Introduction                             | 202 |
| Installing Flex on Your Client Computers | 203 |
| Locating the SPILLMANDIR Directory       | 208 |
| Setting Up the System Defaults File      | 209 |
| Preventing Users From Configuring Flex   | 211 |
| Setting Up User Logins                   | 214 |
| Understanding Flex Client Administration | 220 |
| Editing Server Commands                  | 221 |
| Restricting User Access to Databases     | 224 |

---

## ***Introduction***

This chapter describes how to install the Flex client software on your agency's computers. The chapter also describes how to set up user logins and how to configure the software for individual users. Before you install and configure Flex on a client computer, complete all setup and configuration tasks on your agency's UNIX server.

## ***Installing Flex on Your Client Computers***

The following procedure describes how to install Flex on a client computer when the installation program is located on a networked drive. For other installation options, contact Spillman Technical Services.

Use the following procedure to install Flex on each client computer:

1. Log on to the client computer.

To install Flex on a computer that is running Microsoft Windows XP, Windows Vista, or Windows 7, select one of the following options.

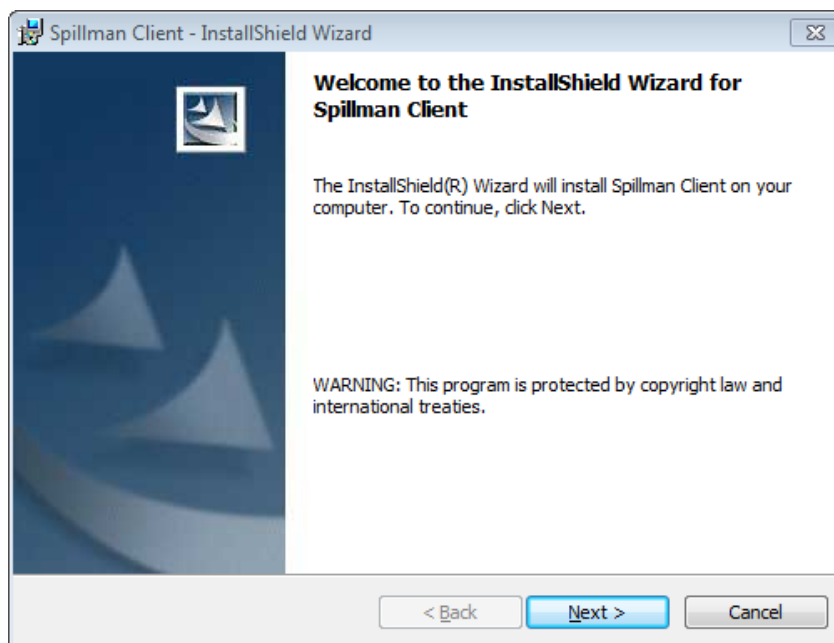
| If                                                                    | Log on with                                                                           |
|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| You want all users of the computer to have access to the software     | Your administrative login                                                             |
| You want only one user of the computer to have access to the software | The personal login of the user whom you want to give exclusive access to the software |

2. Exit any Windows programs that are running on the computer.
3. From the client computer, connect to the networked drive that contains the installation folder.
4. Double-click the file `Spillman.exe`.

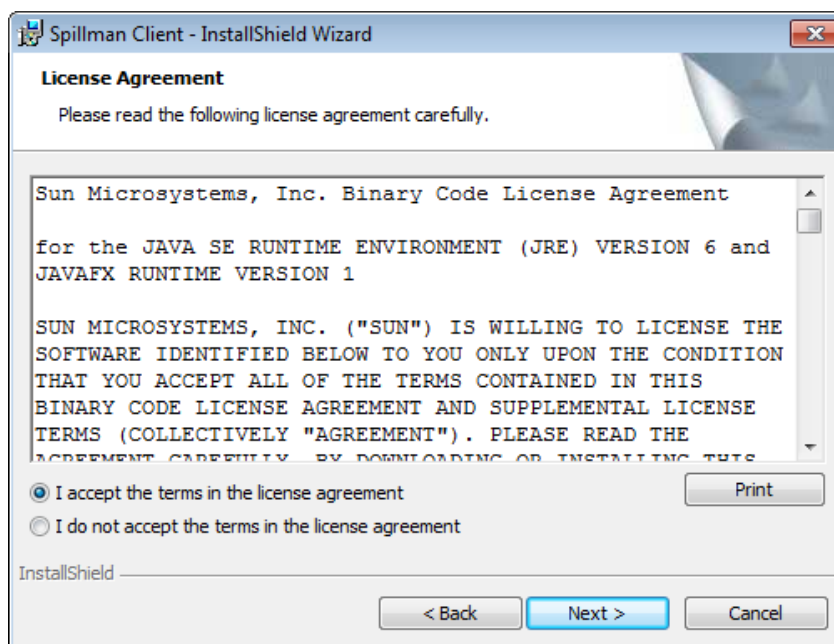
## 9 Installing, Configuring, and Maintaining Flex on a Client Computer

### Installing Flex on Your Client Computers

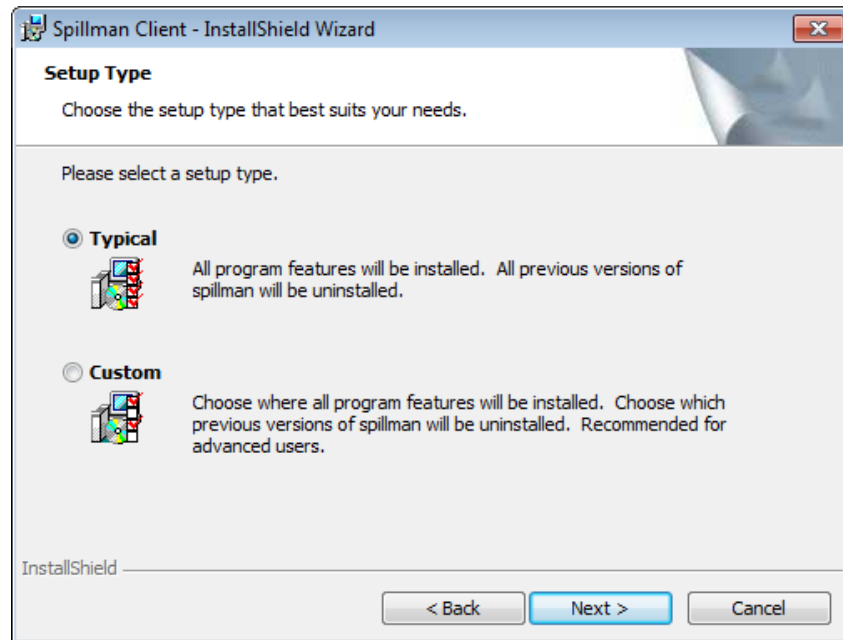
After the Installation program is ready, the Introduction dialog box appears.



5. Click **Next** or press Enter. The License Agreement dialog box appears.

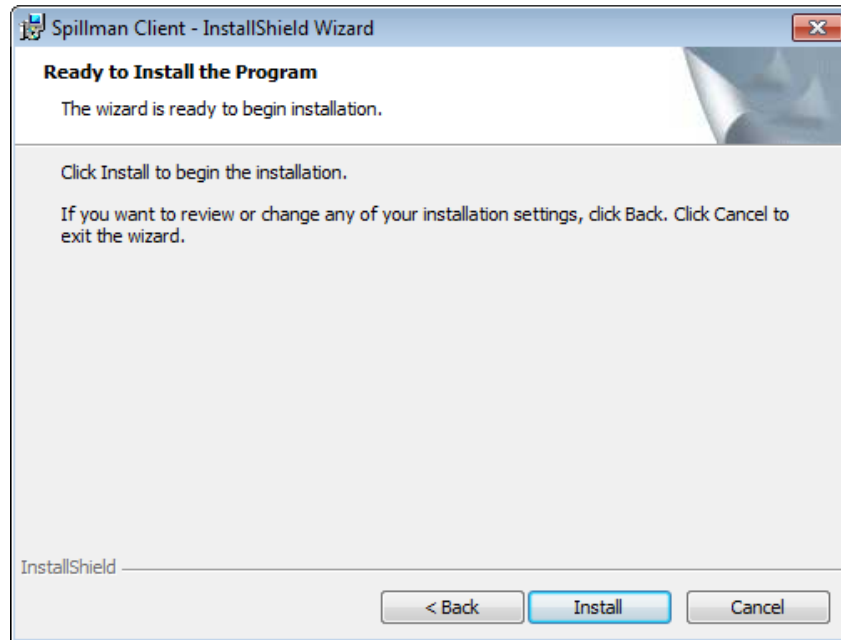


6. Read the license agreement, and click the **I accept the terms in the License Agreement** button.
7. Click **Next**. The Setup Type dialog box appears.

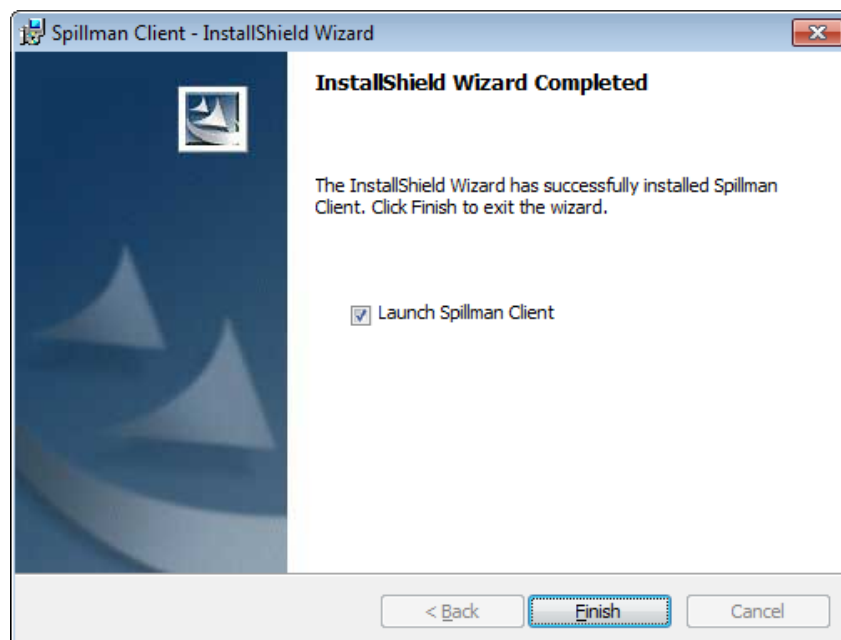


8. Do one of the following:
  - To perform the standard installation, select **Typical**. This removes all previous versions of the software.
  - To perform a custom installation, select **Custom**. This allows you to select which versions of the software are uninstalled.
9. Click **Next**.

10. The following dialog box appears. Click **Install** to begin the installation process.



When the installation is complete, the following dialog box appears.



11. Click **Finish** to exit the installation program.

12. Start Flex and set up the login for the user of that computer, as described in [“Setting Up User Logins” on page 214](#).

## ***Locating the SPILLMANDIR Directory***

The SPILLMANDIR directory, located on your agency's UNIX server, contains all other directories. It contains all of the software configuration files, including a configuration file for each user login.

The specific location of the SPILLMANDIR directory depends on the configuration of your agency's server. Normally, SPILLMANDIR is located in the /sds/Spillman folder at the same level as the FORCE and INDB directories. To determine the location of the SPILLMANDIR directory, do the following:

1. Log on to Flex with SU enabled.
2. Shell out of Spillman by entering **sh** at the command line. The Spillman Terminal window appears.
3. At the UNIX \$ prompt, enter:

```
cd $SPILLMANDIR
```

The screen displays the location of the SPILLMANDIR directory.



## Setting Up the System Defaults File

When your agency receives Flex, a directory called `$SPILLMANDIR/config/system` on the UNIX server contains the generic `defaults.txt` created by Spillman Technologies. If a user logs on and there is no `defaults.txt` file in the `$SPILLMANDIR/config/username` directory, the software copies the generic `defaults.txt` file to that directory.

The `defaults.txt` file contains the default configurations for variables such as the size of text on all screens and the colors, fields, and sort configuration on the CAD screen. By modifying the `defaults.txt` file, you can change the default configuration for Flex.

### TIP

Change the system defaults for your agency as desired before you set up the user logins. The software applies the system defaults to all user logins.

When a user logs on to Flex, the software first looks at the variables in the generic `defaults.txt` file. If a variable is “unlocked,” the software then refers to the user’s personal “user defaults” file. The value in the user’s defaults file overrides the system defaults value.

### NOTE

The user defaults files are located on the UNIX server so that a user can use his or her personal settings on any computer on your agency’s network.

To modify the system defaults file:

1. Log in to the software, using your administrative user name.
2. At the command line, enter **su** and press Enter.  
A dialog box appears, confirming that Super User status is enabled.
3. Click **OK** or press Enter.  
The letters **SU** appear in the upper-left corner of the current menu.
4. Select **File > Configure** to open the Spillman Configuration dialog box.
5. Change the settings in the Spillman Configuration dialog box as needed.
6. Click **Save** to save the configuration.  
A dialog box appears, warning you that you are about to save system-wide preferences.

7. Click **Yes** or press Enter to continue with the save.
8. The settings you created are now stored in the system defaults file (`defaults.txt`), located in the `$SPILLMANDIR/config/system` directory.

### ***Limiting the number of open CAD sessions***

To limit the number of CAD sessions a user can open in one session, add a command in the following format to the defaults text file (`defaults.txt`) in the configuration directory on the server:

**`I_max_cad_sessions=n`**

Replace *n* with the number of CAD sessions that can be open during a session.

## Preventing Users From Configuring Flex

You can prevent users from saving their individual configurations. To do this, lock the features in the Spillman Configuration dialog box that you do not want a user to change.

In version 6.3 and above, you can lock individual settings from the **Lock Settings** tab of the Spillman Configuration dialog box. To access this tab, you must have Super User status in Flex.

### NOTE

If you lock a setting, a user can still change that setting for the current session. When the user exits Flex, the software reverts to the default settings.

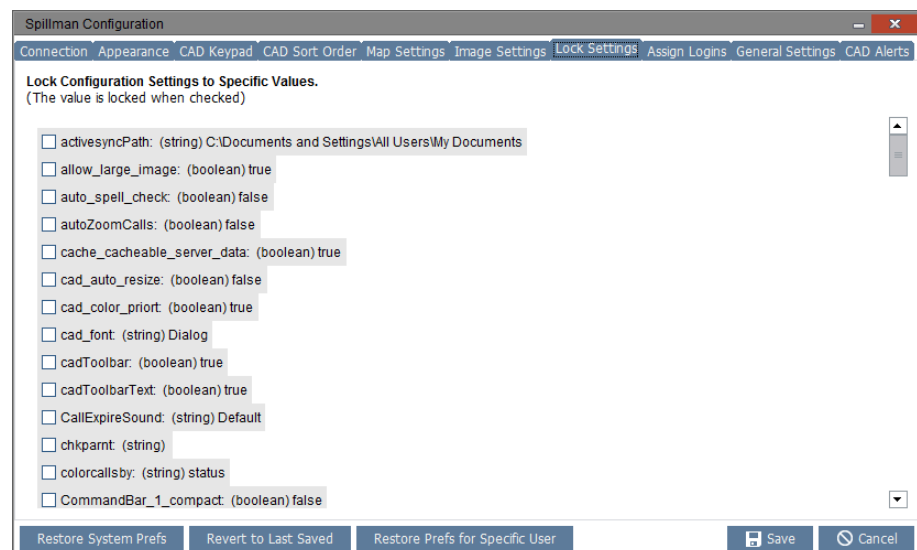
To lock features:

1. Start Flex and enable Super User status as described in [“Adding server commands” on page 221](#).
2. Select **File > Configure**. The **Configuration** dialog box appears.

### NOTE

When you open the **Configuration** dialog box after turning on Super User privileges, the dialog box shows your agency's system-wide settings only. It does not show your personal settings.

3. Click the **Lock Settings** tab.



4. Scroll through the list, and click the check box for each setting that you want to lock. When a check mark appears in a box, the corresponding setting is locked for all users. For information about each setting, refer to the following table.

| Lock this setting       | To prevent users from                                                                                                 |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------|
| allow_large_image       | Changing the <b>Allow user to save images larger than the default</b> option in the Spillman Configuration dialog box |
| autoZoomcalls           | Using the <b>Auto Zoom to New Calls</b> check box in the Spillman Configuration dialog box                            |
| cad_color_priort        | Using the <b>Color code call priorities</b> check box in the Spillman Configuration dialog box                        |
| cad_font                | Changing the CAD default font size and colors                                                                         |
| CONF:conf_name          | Changing any of the database configurations, such as the configuration for your Live database                         |
| DefaultShortCutBar      | Changing the <b>Show standard options text</b> check box in the Spillman Configuration dialog box                     |
| doc_folder              | Changing the <b>Documentation Path</b> field in the Spillman Configuration dialog box                                 |
| enhanced_image          | Changing the <b>Enhanced 400X600 (NIST Standard)</b> option in the Spillman Configuration dialog box                  |
| font_family             | Changing the default font size used for prompts                                                                       |
| font_size1024x768       | Changing the default font size for this screen resolution                                                             |
| font_size1280x1024      | Changing the default font size for this screen resolution                                                             |
| font_size1600x1200      | Changing the default font size for this screen resolution                                                             |
| font_size               | Changing the default font size for the software                                                                       |
| hideCalls               | Using the <b>Hide Calls on Map</b> check box in the Spillman Configuration dialog box                                 |
| hideUnits               | Using the <b>Hide units on Map</b> check box in the Spillman Configuration dialog box                                 |
| image_nfs               | Changing the <b>NFS/Mount (location of images)</b> option in the Spillman Configuration dialog box                    |
| keypad 1–9, –, and +    | Changing the <b>CAD Keypad commands on the CAD Keypad tab</b>                                                         |
| list_storage_limit_mult | Changing the <b>Max Number of Transfers to Store</b> setting in the Spillman Configuration dialog box                 |
| list_transfer_amt_mult  | Changing the <b>Max Number of Pages per Transfer</b> setting in the Spillman Configuration dialog box                 |

| Lock this setting     | To prevent users from                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------|
| MapDataPath           | Using the <b>Path for map data file</b> field in the Spillman Configuration dialog box              |
| MapPath               | Using the <b>Path for map installation</b> field in the Spillman Configuration dialog box           |
| Mono_font             | Changing the <b>Fixed Typeface</b> menu in the Spillman Configuration dialog box                    |
| picturelink           | Changing the <b>PictureLink Path</b> field in the Spillman Configuration dialog box                 |
| port                  | Changing the value in the <b>Port Number</b> field of the Spillman <b>Configuration</b> dialog box  |
| prompt_on_exit        | Changing the <b>Prompt Before Exiting</b> check box in the Spillman Configuration dialog box        |
| remember_windows      | Using the <b>Remember Window Positions</b> check box in the Spillman Configuration dialog box       |
| show_thumbnails       | Using the <b>Show thumbnails for images</b> check box in the Spillman Configuration dialog box      |
| showcustomToolbarText | Changing the <b>Show custom options text</b> menu in the Spillman Configuration dialog box          |
| std_font              | Changing the <b>Standard Typeface</b> menu in the Spillman Configuration dialog box                 |
| use_win_keys          | Using the <b>Use standard cut/copy/paste</b> check box in the Spillman Configuration dialog box     |
| userAutoLoginCmds     | Changing the value in the <b>Auto Login Commands</b> field of the Spillman Configuration dialog box |

5. After you finish making changes, click **Save**.

## Setting Up User Logins

This section describes how to set up the user logins that are specific for Flex. Before setting up the user logins, you must set up user logins on the UNIX server. For more information, refer to the *Security Setup and Maintenance Manual*.

### TIP

Change the system defaults for your agency as desired before you set up the user logins. the software applies the system defaults to all user logins.

You set up user logins in the **Configuration** dialog box. Because user logins are stored on the UNIX server, you can set up user logins from any PC on which Flex is installed. Users can access their logins from any PC on which Flex is installed.

Normally, you assign each user login access to only one database (Live, Tutor, or Training). For example, a user's personal login gives that user access to the Live database only. When the user needs to use the tutorial database, he or she logs on with one of the generic logins, such as `Train1`.

If you give a user login access to more than one database, the user can click **Detail** or press ESC in the **Login** dialog box to display more options in the dialog box. The **Server** field allows the user to select a database.

To add a user login:

1. Start the software on any PC. The **Login** dialog box appears.  
Type the user's user name and password (which you defined on the UNIX server).
2. Click **Detail** or press ESC.

3. Select one or more of the following options.

| For this option                                                                                  | Do this                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| The <b>Server</b> field                                                                          | <p>Select the server that you want the user to log on to.</p> <ul style="list-style-type: none"> <li>If your agency has one server, the <b>Server</b> field might already display <code>Default</code> or the name of that server.</li> <li>If your agency has more than one server, each server appears in the lookup list. Select the correct server. The user can select a server while logging on.</li> </ul> <p>Note: If the <b>Server</b> field is empty, copy the <code>comdf1ts.txt</code> file from your agency's network server to the folder that contains the installation program. The <code>comdf1ts.txt</code> file is created during installation. If you have any questions, contact Spillman Technical Services.</p> |
| The <b>Connection Protocol</b> buttons                                                           | <p>Unless your Spillman installer instructed you to do otherwise, click the <b>Connected</b> button. If your agency or a specific user is using UDP for the connection protocol, click the <b>Mobile</b> button.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The <b>Configuration Location</b> buttons                                                        | <p>Choose the configuration location (<b>Server</b> or <b>Local</b>).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| The <b>Choose custom login</b> check box                                                         | <p>Normally, assign the user access to only one database (Live, Tutor, or Training). If the user needs to log on to more than one database, select the <b>Choose custom login</b> check box. The user can select a database while logging on.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The <b>Edit Server</b> button<br>(This option is mainly for use by Spillman Technical Services.) | <p>Click the <b>Edit Server</b> button to open a dialog box that contains information about the server you selected in the <b>Server</b> field. If you installed Spillman as described in <a href="#">“Installing Flex on Your Client Computers” on page 203</a>, this dialog box already contains the necessary server information. You can use this dialog box to enter, edit, or delete server information. The information is saved in the <code>comdf1ts.txt</code> file. Note: It is recommended that you use port 893. However, depending on how you set up your client PCs, it might not be available. You can also use port 894 or any number less than 1024.</p>                                                             |

4. Click **Configure**. The **Configuration** dialog box appears, with the **Connection** tab open.



5. Enter the correct value **Auto Login Commands** field.

In the **Auto Login Commands** field, you can specify one or more screens that the software is to open when the user logs on. For example, you can tell the software to open the CAD screen, the Law screen, and the Names screen upon startup.

Enter the name or names of the screens that you want to open upon startup. Separate names by a semicolon (;). Enter the names exactly as they appear on the actual screen. For example, enter:

**cad;law;names**

The **Server Commands** field contains values that determine the databases that all users can access. Normally, your Spillman installer defines the server commands for your agency. You need Super User privileges to edit this field. For instructions on editing the server commands, see [“Editing Server Commands” on page 221](#).

6. If your agency uses the PictureLink software, enter the path to the PictureLink directory in the **PictureLink Path** field.
7. Click **Save** to finish adding the user login.

Set up additional user logins as needed. You can enter the settings for each user login individually, or you can copy the defaults file for one user, renaming it with the other user names. The file is on the UNIX server. Copy the file for each user who is to access the software with the same settings. For information about accessing a



user's defaults file, [see "Setting Up the System Defaults File" on page 209](#).

\_\_\_\_\_

This image shows a full page of blank handwriting practice paper. It features approximately 28 evenly spaced, horizontal blue lines across the entire page, providing a guide for letter height and placement. The background is plain white, and there are no margins, text, or other markings present.

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## ***Understanding Flex Client Administration***

The software has two features that normally assist users and reduce your administrative workload:

- The client displays the last user's login ID on the login screen.  
Displaying the last user's login ID is a convenience for users who do not share a computer with others. However, this display can create a security risk as well as an inconvenience when users share computers.
- When the client logs in, the server checks to see whether it is using the current client software, and, if not, automatically downloads the current JAR file to the computer. This automatic update feature normally relieves you of having to update files on many client computers. However, some agency networks employ system policies or other mechanisms that deny users the privileges needed to install software, which causes errors on the user computer when the automatic upgrade is attempted.

This section shows how to handle these situations.

### ***Suppressing the display of the last login ID***

To block the display of the last user's login ID, use the following procedure:

1. Log in to the computer as an administrator.
2. Using a text editor such as Notepad, open the `comdfmts.txt` file.  
  
This file is in the directory where Flex is installed. For example, for Spillman 6.1 this directory is  
`C:\Program Files\Spillman\Spillman6.1\comdfmts.txt`.
3. Add the following line to the file:  
  
**`blank_login=true`**  
  
If you do not add this line, or if you use any value other than **`true`**, the software continues to display the last user's login ID when another user logs in.
4. Save the file.

## Editing Server Commands

The Spillman Configuration dialog box contains the **Server Commands** field. The values in this field determine the databases a user can access and are specific to the current server.

Normally, the Spillman installer defines the server commands for your Live, Tutorial, and Training databases. If your agency adds a new server or make changes to your existing server, you must add or edit server entries.

To make changes to the **Server Commands** field, you must have SU privileges. With these privileges, you can access the **New Entry**, **Edit Entry**, and **Remove Entry** buttons. You also can access the **Allow Custom Server Commands** check box.



If you do not want a user login to have access to a certain database (for example, if you do not want a training login to have access to the Live database), see [“Restricting User Access to Databases”](#) on page 224.

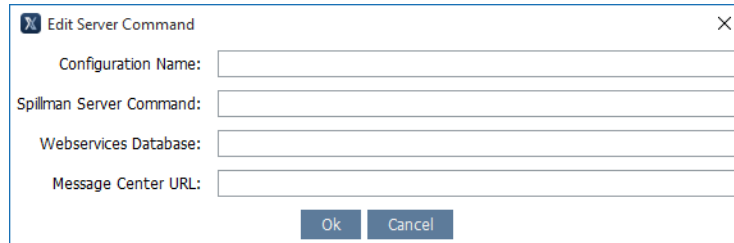
You can add, remove, and edit server commands. The following section explains each task.

### Adding server commands

To add a server command:

1. Start the software.
2. At the command line, type **su** and press Enter to enable Super User status.

3. Select **File > Configure**. The Spillman Configuration dialog box appears.
4. Click the **New Entry** button, located below the **Server Commands** field. The **Edit Server Command** dialog box appears.



The 'Edit Server Command' dialog box contains the following fields and buttons:

- Configuration Name:** A text input field.
- Spillman Server Command:** A text input field.
- Webservices Database:** A text input field.
- Message Center URL:** A text input field.
- Buttons:** 'Ok' and 'Cancel' buttons at the bottom right.

5. In the **Server Config Name** field, enter a name for the configuration, such as **Live**.
6. In the **Server Config Command** field, enter the actual server command, such as:  
  


```
/usr/local/bin/Spillman61 @ip -s hub
```

The server command specifies the location of the database and server.
7. Click **OK** to save the server command.

## Removing server commands

To remove a server command:

1. Start Spillman and enable Super User status as described in [“Adding server commands” on page 221](#).
2. Select **File > Configure**. The Spillman Configuration dialog box appears.
3. In the **Server Commands** field, click the entry that you want to delete.
4. With that entry highlighted, click **Remove Entry**. A dialog box similar to the following appears.



The 'System request' dialog box displays the following:

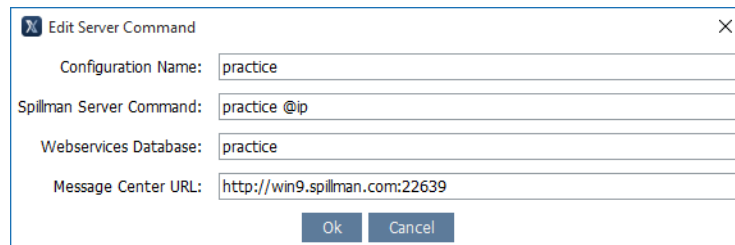
- Title Bar:** 'System request' with a close button (X).
- Icon:** A green question mark icon.
- Text:** 'Are you sure you want to remove "practice"?'.
- Buttons:** 'Yes' and 'No' buttons at the bottom.

5. Click **Yes** to delete the entry.

## Editing server commands

To edit a server command:

1. Start the software and enable Super User status as described in [“Adding server commands” on page 221](#).
2. Select **File > Configure**. The Spillman Configuration dialog box appears.
3. In the **Server Commands** field, click the entry that you want to edit.
4. With that entry highlighted, click **Edit Entry**. A dialog box similar to the following appears.



5. Edit the entry as needed.
6. Click **OK** to save your changes.

## Allowing users to enter server commands

To allow all users to enter server commands:

1. Start the software and enable Super User status as described in [“Adding server commands” on page 221](#).
2. Select **File > Configure**. The Spillman Configuration dialog box appears.
3. Click the **Allow Custom Server Commands** check box, located below the **Server Commands** field. When a check mark appears in the box, all users can access the **New Entry**, **Edit Entry**, and **Remove Entry** buttons in the Spillman Configuration dialog box.

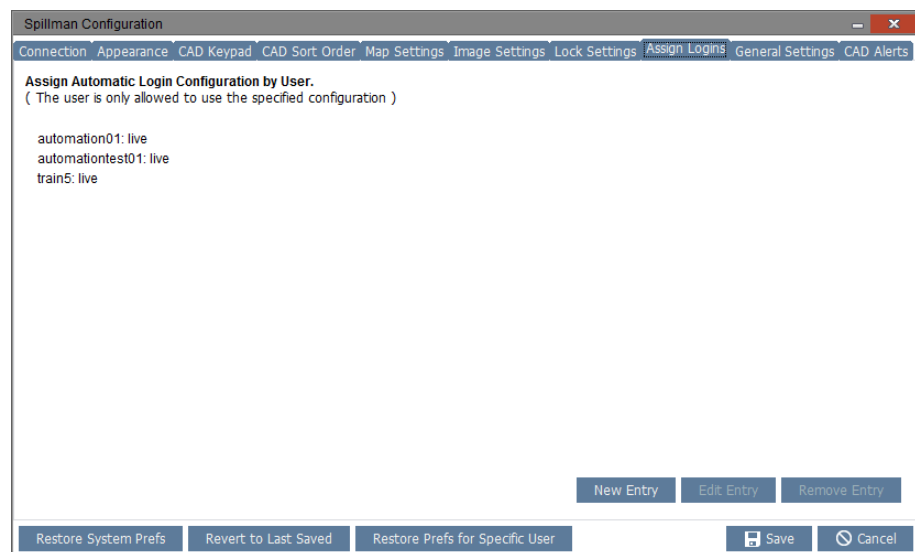
## Restricting User Access to Databases

To prevent a user from accessing a particular database, assign the server configuration for that database to that user's user name. For example, to prevent users from using a training user name (such as `Train1`) to access your agency's Live database, assign the server configuration for the Training database to each of your agency's training user names.

For information about adding a server configuration, see [“Adding server commands” on page 221](#).

To assign server configurations to your users:

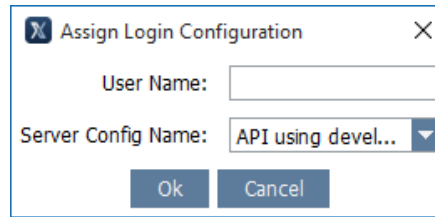
1. Start the software and enable Super User status as described in [“Adding server commands” on page 221](#).
2. Select **File > Configure**. The Spillman Configuration dialog box appears.
3. Click the **Assign Logins** tab. This tab appears only after you enable Super User status.



4. Click **New Entry**.



The Assign Login Configuration dialog box appears.

The image shows a dialog box titled "Assign Login Configuration" with a close button (X) in the top right corner. Inside the dialog, there are two input fields: "User Name:" followed by a text box, and "Server Config Name:" followed by a dropdown menu. The dropdown menu currently displays "API using devel...". At the bottom of the dialog, there are two buttons: "Ok" and "Cancel".

5. In the **User Name** field, enter the user name to which you want to assign the server configuration, for example `Train1`.
6. In the **Server Config Name** field, select the server configuration to assign. The lookup list contains all your agency's server configurations.
7. Click **OK**.
8. Assign other server configurations to other user names as needed by repeating steps 4–7.
9. In the Spillman Configuration dialog box, click **Save**.



# Chapter 10

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## *Backups*

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## Introduction

Because of the serious risk of losing or damaging data, one of your most important responsibilities as an SAA is to keep backup copies of the information on your system. Any of the following occurrences can cause damage or loss of files and file systems:

- A system crash (unplanned program termination due to a hardware or software failure).
- Malfunction within a hard disk or a controller card.
- Deletion of information by users.
- Power failure caused by either a loss of power or someone turning off the power before completing a proper shutdown. Spillman Technologies strongly recommends using a UPS (Uninterruptible Power Supply), which keeps your system running when there is no electrical power.

Having a good, current backup is essential to minimizing your agency's loss of data if something happens to the system. Regardless of how busy you become with other tasks, do *not* neglect any of the following backup tasks:

1. Make backups at scheduled times.

The more active your system, the more frequently you should make backups.

2. Verify that your backups are good.

3. Properly store your backups until they are needed.

Be sure to retain some old backups in case a new backup is bad (for example, in case a sector of the hard disk goes bad and the bad sector is copied to the backup tapes). If your system crashes and your backup tapes are bad, you cannot restore data from those tapes.

In addition to backing up current data, your agency might have a need to back up and archive data, such as old radio logs or old configuration files, for permanent storage.

This chapter provides recommended backup schedules, methods, and instructions. Follow the recommended backup schedules at your discretion.

### CAUTION

It is your responsibility to maintain current backups. If you do not have current backups, Spillman Technologies cannot help you restore data when system or user errors occur.

## ***Backup Tapes, Tape Drives, and Hardware***

To back up a computer or file system, copy the files onto a long-term, low-cost storage medium. The most common storage medium in use is the cartridge or data tape.

The following types of backup tapes and hardware are recommended by Spillman Technologies.

### **4mm DAT (Digital Audio Tape) drive**

The 4mm DAT drive uses cassette-sized tapes that can store 2GB (gigabytes) of information.

Spillman Technologies recommends only the 4mm DAT tape for new or replacement drives. Its speed, capacity, and ease of use make it the best choice.

Because of the various tape drives already in use, Spillman Technologies supports the following drives:

### **8mm DAT tape drive**

The 8mm DAT drive uses cassette-sized, D8-112 tape that has a 2GB capacity.

Our in-house 8mm can only read the 2GB size, uncompressed tape. If you use larger sizes or are compressing data (4mm or 8mm), the software cannot read your tape at our office to help you in a data recovery operation.

### **Data cartridge drive**

The data cartridge drive uses 1/4-inch tape cartridge. Spillman Technologies supports the following sizes of data cartridge drives:

- DC6150 drive, which uses a tape cartridge that stores 150MB (megabytes) of information.
- DC600 drive, which uses a tape cartridge that stores 60MB

The data cartridge drive must be a streaming tape drive (high-speed magnetic tape drive used to back up an entire hard disk) such as an Archive 60 or 150. Other sizes might work but must be approved by Spillman Technical Services for compatibility.

### **Diskettes**

Diskettes can be used to back up users' files or small system files, but Spillman Technologies does not recommend using diskettes for system backups. Most diskettes hold only 1.2 to 1.4MB of data.

Consult your system manuals for the proper tapes and hardware to use with your software. Normally, tapes do not need to be formatted before use. All data tapes wear out after repeated use. To prevent bad backups, check with the manufacturer for the life expectancy of your tapes. Also, check your tapes often to see that they and the data are in good condition.

### ***Life expectancy of 3M tapes***

3M has provided the following information about the life expectancy of its tapes:

- 6150 cartridge tape
  - 5000 passes or 5000/number of tracks
  - $5000/18 = 278$  backups per tape
  - Clean cartridge monthly
- 4mm and 8mm DAT tapes
  - 2000 passes
  - 300 insertions

You should run the tape completely from beginning to end. Some tape drives automatically rewind or re-tension the tape, making one pass to load and one to do the backup. Storage life is 10 years. Spillman Technologies recommends that you clean the cartridge drive every 30 hours, every 30 tapes, every 30 days, or every 30 gigabytes, whichever comes first. Check with your tape vendor for specific information on your tapes.

### ***Getting updates or reading data tapes***

The software can send updates and read your data tapes only if your tapes are of a type mentioned above. The DC-2120 format is not supported for systems similar to the Colorado tape systems. If you have questions, please call Spillman Technical Services.

Spillman Technologies recommends making only sequential-tape backups, in which you use one tape after another as needed to complete the backup. Some systems can handle the newer hardware devices, such as juke boxes and tape robots, which let you make parallel backups. However, if you do back up to several drives at a time, you must use the same number of drives when you restore or read the tapes.

Although other systems might work, Spillman Technical Services can recover data at our offices only if the data is on one of the above sequential-tape systems. All options of juke boxes, network backups, parallel drive systems, and backup software must be supported by the hardware or software vendor for your UNIX system and backup products.

## Hardware setup record

You should keep a current hardware setup record. Whenever you perform a backup, upgrade your software, require repair service, or purchase maintenance supplies, you will need the backup device information. You might also want to record the commands you use to perform the backup, including special options and scripts used.

Record the following information about your backup devices.

| Device Name | Media Type | Tape Size | Block size | Other info |
|-------------|------------|-----------|------------|------------|
|             |            |           |            |            |
|             |            |           |            |            |
|             |            |           |            |            |
|             |            |           |            |            |

## Backup software

Many backup programs are on the market today, but Spillman Customer Support recommends only the following programs and formats.

### NOTE

The only backup software that Spillman Technologies supports is the Spillman backup script. All other software is supported by the manufacturer. Spillman Technologies only recommends the software as options for your backups.

### Spillman backup script

The Spillman backup command is a shell script that allows the SAA to perform a full system backup, database backup or to verify the tape. This backup is normally a cpio backup. [see “Setting Up the Spillman Backup Script” on page 248.](#)

- tar** Tape archive files (tar) is an early UNIX System utility to archive data to tapes. Check your UNIX system manuals or the man pages in your Unix system, for commands.
- cpio** Copy file archives in and out (cpio) is a UNIX System command created to replace tar. It is more flexible than tar. Check your UNIX system manuals or the man pages in your UNIX system, for commands.

## ***System backup utilities***

System backup utilities are scripts and files that are part of the UNIX operating system. These utilities help in the setup and execution of backup commands. Some of these commands are `dd`, `dump`, `restore`, and `backup`. In addition, these utilities can be used to read and write the tape if they use `tar` and `cpio` commands.

The following are system backup utilities:

- cron** Cron is system utility that helps to automate the backup process. If your agency's backups can fit on one tape, you can set cron to start the backup automatically each day. However, if you use two tapes, you might get corrupt or incomplete backups.
- fbackup (HP)** Fbackup is an HP system utility that is faster and more flexible than `tar` or `cpio` but has a special format that can be used only on an HP running `fbackup`.
- mksysb (AIX)** Mksysb is an IBM AIX system utility that makes a bootable backup of the rootvg volume group only. You can use this backup to boot your system and restore the operating system. You then have to restore all other data from all other volume groups that were locked up separately.

## ***Types of backups***

There are four types of backups that Spillman Technologies recommends:

- Bootable operating system backup** Allows you to boot the computer from a backup tape and gives you the choice to reload the operating system. This option restores the operating system to its state at the time of backup. You might need to load additional tapes to retrieve the rest of the files and data. Included in this type are emergency boot diskettes and BOSboot diskettes (AIX RS6000). These diskettes let you boot



the system with a minimal configuration so that you can perform system maintenance when the system is down. Discard old boot diskettes and create new ones any time a change occurs in the operating system.

**Full system backup**

Not a bootable tape, but includes all the system files and executable programs. This is a comprehensive backup that backs up the entire system—database, software, everything. Consequently, this backup takes longer than the other backups and is not done as often.

**Database backup**

Backs up all data your agency has entered into the system, including narratives. It backs up tables from all your Spillman modules, the code tables, and the User Privileges Maintenance table. It does not back up the executable programs that make up the software itself.

**Backup of individual files or directories**

Backs up only the files or directories specified. You can use this backup to archive radiolog files before purging them from the system to free up hard disk space. Use this backup also to save users' files, if needed.

## Scheduling Backups and Backup Media Rotation

Ideally, you should perform the database backup each day and a full system backup once a month. The more backups you perform the more likely your data is protected. However, some agencies find that they need to back up the database only one, two, or three times a week, depending on the size of the agency and the amount of data entered per day. You might want a more flexible schedule that allows you to skip backups when minimal data has been entered.

When planning your backup schedule, keep in mind the following questions:

- How much work are you willing to lose?
- How are you going to retrieve the lost data?
- How much data can you reenter without excessive effort?
- How long will it take to reenter the lost data?

### CAUTION

In the event of a system crash, you lose all data entered since the last backup!

Spillman Technologies recommends that every agency perform a full system backup at least once a month, and at the following times:

- When your machine is set up.
- After you set group and individual security and enter all codes into the software.
- After entering all historical data (past arrests) into the software.
- Before and after any software and hardware updates.
- After any system changes that are difficult to remember and reenter.

### NOTE

If the system crashes for any reason, you must use your backups to restore the system. Your agency must reenter any lost data entered since the last backup.

The most convenient time to perform a backup is during early morning hours, when system use is low. The backup can be executed by dispatchers, corrections officers, or other employees on duty during these hours who have time. Keep a log of the backups.

## Alternating Backup Tapes/Diskettes

Establish an effective backup procedure for your agency that helps ensure a reliable set of tapes for restoring the system. Each set must contain enough tapes for one backup. Use these tape sets on a rotating schedule.

Spillman Technologies recommends at least three sets of tapes for the full system backup and the database backup, to be used on a rotating schedule. A database set contains enough tapes to perform a daily backup. If you use two tapes per day you need 14 tapes for one set of database tapes.

Back up the full system each Monday morning. Each of the other days of the week, back up the database. Use set 2 the second week, starting with the full system then the daily. Use set 1 again the third week.

The full system backup can be made weekly, monthly, or quarterly, depending on your agency's needs.

### Labeling storage media

Label all your storage media, whether tapes or diskettes. Spillman Technologies suggests that you use a black marker and write on the tape cartridge itself. Tapes must be in the correct order when you restore a multi-tape backup. Label each tape with the group the tape is part of, the set number, and the tape number within that set.

For example, for two database backup sets, label the tapes as below:

| Week 1—Set A |       |  | Week 2—Set B |       |
|--------------|-------|--|--------------|-------|
| Day          | Tape  |  | Day          | Tape  |
| Monday       | DB A1 |  | Monday       | DB B1 |
| Tuesday      | DB A2 |  | Tuesday      | DB B2 |
| Wednesday    | DB A3 |  | Wednesday    | DB B3 |
| Thursday     | DB A4 |  | Thursday     | DB B4 |
| Friday       | DB A5 |  | Friday       | DB B5 |
| Saturday     | DB A6 |  | Saturday     | DB B6 |
| Sunday       | DB A7 |  | Sunday       | DB B7 |

DB A1 stands for Database Backup set A (week) tape 1 (day).

If you need more than one tape for one backup, use letters to distinguish the different tapes. For example, two tapes per backup could be labeled, DB A1a, DB A1b, DB A2a, DB A2b, and so on. A1a stands for Database Backup set A (week) tape 1 (day) and a–z (for the data subset).

Label the full system backup tapes SYS1, SYS2, SYS3, where SYS is full system and 1 is the set number.

**Rotating tapes**

For a database or full system backup, rotate the tapes, using the oldest copy for the next backup. For example, you might have three tapes in the full system backup group. In January, use SYS 1 (System Backup Tape 1); in February, SYS 2; and in March, SYS 3. In April, reuse the oldest copy (SYS1). In May, reuse SYS 2.

Alternate the database backup tape sets, using DB set A the first week. The next week, use DB set B. The third week, use the DB set A, and so on. After using a tape for a backup, log information about the backup in the log book. Please remember that you should perform system backups frequently and on a regular schedule.

## Backup log

To help maintain a regular backup schedule, develop a backup log for your system. Following is an example. You can also customize the tables for your own backups.

| Date       | Backup Type | Tape Number               | Verified (Y/N) | Start Time | End Time | Errors | Signed |
|------------|-------------|---------------------------|----------------|------------|----------|--------|--------|
| 12/1 Fri.  | Full        | Sys 1<br>DB A6a<br>DB A6b |                |            |          |        |        |
| 12/2 Sat.  | Data        | DB A7a<br>DB A7b          |                |            |          |        |        |
| 12/3 Sun.  | Data        | DB B1a<br>DB B1b          |                |            |          |        |        |
| 12/4 Mon.  | Data        | DB B2a<br>DB B2b          |                |            |          |        |        |
| 12/5 Tue.  | Data        | DB B3a<br>DB B3b          |                |            |          |        |        |
| 12/6 Wed.  | Data        | DB B4a<br>DB B4b          |                |            |          |        |        |
| 12/7 Thu.  | Data        | DB B5a<br>DB B5b          |                |            |          |        |        |
| 12/8 Fri.  | Data        | DB B6a<br>DB B6b          |                |            |          |        |        |
| 12/9 Sat.  | Data        | DB B7a<br>DB B7b          |                |            |          |        |        |
| 12/10 Sun. | Data        | DB A1a<br>DB A1b          |                |            |          |        |        |
| 12/11 Mon. | Data        | DB A2a<br>DB A2b          |                |            |          |        |        |
| 12/12 Tue. | Data        | DB A3a<br>DB A3b          |                |            |          |        |        |
| 12/13 Wed. | Data        | DB A4a<br>DB A4b          |                |            |          |        |        |
| 12/14 Thu. | Data        | DB A5a<br>DB A5b          |                |            |          |        |        |

## Backup Options

Other backup options are available that might fit your agency needs.

### NOTE

Spillman Technologies recommends that all users log out of the software before you perform any type of backup. If someone writes to a file while you are doing the backup, the backup sees the file as being busy and does not write the record to the tape. If you have to restore with this tape, the tape might not contain all the information needed.

The following are other types of backups and options:

### Disk mirroring

A system of data storage in which all information that is written to hard disk storage is written to two or more disks, giving you redundant copies of the information. With this system, if your primary hard disk fails, you can use the redundant copy to continue working, with no loss of data and little down time. This type of storage system can be implemented via hardware, software, or a combination of the two.

An additional benefit to disk mirroring is that you can temporarily break the mirror and make a backup from the redundant copy. This allows users to continue to work, modifying the information stored on the primary disk, while the backup is made from the redundant copy. When the backup is finished, you can then rebuild the mirror, and any changed information on the primary copy is automatically changed on the redundant copy.

If you would like more information on disk mirroring, check with your hardware and operating system vendor. The vendor can provide details about the implementations of disk mirroring available for your particular system.

### Incremental backups

Type 1—Backs up files changed since the most recent backup. This might save time on backups. However, each incremental backup is just a changed file from the last backup. If there is a problem with a tape or tapes are out of order, an incremental backup might not restore all the files you need.

Type 2—Backs up all files changed since the last full system backup. The backup takes longer each day. The restore procedure restores the full backup and then the last incremental backup. If you use an incremental backup scheme, Spillman Technical Services is unable to help restore files. Spillman Technical Services might be unable to read tapes sent to them.

### Compressed backups

A backup that compresses data, allowing you to store more data on a tape. If the tapes must be sent to Spillman Technical Services, a backup that uses compression schemes for either hardware or software might not be readable.

**Multiple files systems, multiple disks, multiple dat directories**

If your agency is large, you might need to use one of these backup systems in order to store all necessary data. When using these types of systems, check your tapes to make sure that all files from all file systems and directories are backed up.

**Absolute and relative backups**

You can create absolute backups or relative backups. Spillman Technologies recommends that you use relative backups whenever possible.

In absolute backups, files are stored on tape with the full pathname of the file. For example, if you use an absolute backup and you back up the file `/sds/force/dat/nmmain.dat`, the file is stored on the tape with the name `/sds/force/dat/nmmain.dat`. Thus, when you restore the file, it *must* be restored into `/sds/force/dat` and not into a temporary location. To restore a file that was backed up with an absolute backup, move the original file out of the way and then restore the file.

If you use a relative backup, the file is stored with a relative pathname. For example, instead of being stored as `/sds/force/dat/nmmain.dat`, the file is stored as either `sds/force/dat/nmmain.dat` (without a leading `/`) or as `./sds/force/dat/nmmain.dat` (with a leading dot). When the file is restored, it is restored into a subdirectory of your current directory, instead of being forced into its original location. As a result, you can restore the file to a temporary directory and then work with it without overwriting your original file.

The choice of using relative or absolute backups on a live system can mean a difference of hours in down time. The absolute path is shut down until the problem is fixed, whereas a relative backup lets you keep working until the correct file needs to be moved into place.

## ***Verifying backups***

When you set up your backup procedure, verify each tape to ensure that the correct data is on the tape. Spillman Technologies recommends that you verify after every backup. Hardware or software can malfunction and cause corrupt backups.

If you are close to using an additional tape during backup, make sure when performing and verifying the backup, that the data crosses from one tape to the next. If backups suddenly go from five tapes to one tape or from 1 hour to 10 minutes, something is wrong and needs to be checked. Some programs do a bit-level check, Others only display the files on the tape. Check with the software provider for information on verifying backups. [See “Verifying the backup” on page 243.](#)

### ***Proper storage of backups***

The information stored on the backup tapes is confidential, and vital in the event of data loss on the hardware. Therefore, it is important to store backups in a secure, clean, dry and cool location. Consider fire, water damage, or other disasters when choosing a storage location. To guarantee tape survival, pick the best on-site and off-site storage locations. Spillman Technologies suggests using a safety deposit box as the off-site location.

If you use only one set of tapes, keep the most current tape and no more than half of all the tapes on site. If you use two complete sets, hold one set off site. Keep all but the set you will use for the next backup in a different building from the computer. After using the set of tapes for your current system backup, take that set to storage and bring the oldest copy back to the computer room for the next system backup.

These procedures might seem inconvenient, but they are essential in protecting the database.



## Performing a Backup

When performing a backup, you must keep all users out of the software. To do this, follow these steps:

1. Ask all users to log off the software.
2. Log into the software. The cursor rests at the command line.
3. Type **sh** and press Enter to shell out to the **\$** prompt.
4. Type **cd \$FORCEDIR** and press Enter.
5. Type **touch disable** and press Enter. This command creates a file called **disable** in the **\$FORCEDIR** directory.

You can create a **disable** file and put a message in it that will display to users.

6. Type **chmod 744 disable** and press Enter. This command change the permissions on **disable** to allow access only by root. Now, users cannot log in to the software.
7. After completing the backup, remove the file called **disable** to let users back into the software.

### NOTE

If you are running backups or need to be in the software for system maintenance, remember to log in to the software before disabling it. If you have questions or need further assistance, please contact Spillman Technical Services.

## Security access for performing backups

If you assign an authorized person other than yourself to perform backups, create a “backup” login. This is essentially a root login that can be used only to perform backups. Spillman Technical Services can help you set up this login.

Do not give the person the root login and password. The root login allows complete access to the operating system.

Before performing a backup, check the following:

- Make sure everyone is logged off the software during the backup process. Although backups might appear to work while users are logged on to the system, there is a high chance of an incomplete backup.

- Make sure the storage medium is blank and write enabled.

A storage medium (tape or diskette) is write enabled if it is ready for data to be copied onto it. It is write protected if it has been fixed so that data cannot be copied onto it; this protects the data already on the medium.

For example:

- A data cartridge (1/4-inch) has a safety screw that you can turn to write protect (SAFE) or write enable.
- A tape cassette (4mm or 8mm) has a small plastic tab that you move to write protect or write enable the tape.
- Make sure diskettes are double-sided, high-density, and formatted.

## Backup procedure

To perform a backup, follow these steps:

1. Log in as root. The cursor rests at the root prompt.
  - If you set up a backup login, you must also set up `exec /usr/local/bin/spillman` in backup's `.profile`. Logging on takes the user to the backups menu. Then, you can proceed to step 5.
2. Type `/usr/local/bin/Spillman` and press Enter to enter the software.
3. Enter **backup** at the command line, or select Backup Database or Full System from the System Maintenance menu. The following backup menu appears:
  1. Backup Entire System
  2. Backup Databases
  3. Verify Backup/Backup Listing
4. Select Backup Entire System or Backup Database, depending on the type of backup you wish to perform. The system prompts Insert first tape/diskette in drive, tap RETURN when ready.
5. Insert the first tape/diskette in the drive, and then press Enter.

### NOTE

If you must cancel a backup after you start the backup process, press the interrupt character (Ctrl+C or Delete). The system takes you out of the backup program.

Once the first tape/diskette is full, the system prompts you for any subsequent tapes/diskettes required for the backup by displaying a message similar to the following: Reached end of medium on output. Change to part 2 and press Enter key.

6. Insert the next tape/diskette, and then press Enter to continue with the backup.

**CAUTION**

If you receive an error message, contact system support personnel.

When the system completes the backup, the screen prompts Entire system has been backed up (for a full system backup) or Database has been backed up (for a database backup).

7. Press any key to return to the backup menu.

**Verifying the backup**

To verify the backup:

1. Select backup menu option 3, Verify Backup/Backup Listing. The system prompts you to insert the first tape/diskette you used for the backup.
2. Press Enter. The names of the files on the tape/diskette begin to scroll down the screen.
3. Verify that the filenames are correct. The system prompts you as other tapes/diskettes are needed. You can cancel the verification if necessary.

If an error message appears during backup or verification, check your operating system manual's error or troubleshooting section. If you do not find an answer there, call Spillman Technical Services.

4. When you finish verifying the backup, enter q at the backup menu to exit to the previous menu. Remove the tape/diskette. Write the appropriate backup information on the label of the backup media.

## Restoring a Backup

If you lose your database, you can restore it from your backups. However, *confer with your system support people before you attempt to do this!* Restoring from backups will replace most of your data, but you might accidentally overwrite data that you did not want to overwrite.

### Understanding restoring

Spillman Technologies hopes that you never experience a system crisis that requires you to restore data from backup tapes. However, you should plan for such an emergency situation nonetheless. By trying out the backup and restore commands before you have a system failure, you can save down time and data loss during a real crisis.

The following are incidences when you might have to use your backups to restore the system or data:

- A user deleting files, resulting in corrupt data files
- Hard disk problems, resulting in operating system problems
- Hardware becoming inoperative

If you must restore the operating system, work with your hardware and operating system support people to get the system back on line. Keep a record of the system parameters such as file system names, sizes, and disk sizes. They are invaluable in reconstructing a system.

Following are the three basic restore procedures:

- Restore individual files or directories
- Restore full system—hard disk failure
- Restore entire system temporarily to different hardware

### Restoring an individual file or directory

Usually, the SAA, a user, or Spillman Technical Services requests restoration of an individual file or directory. For example, you might encounter a data file that is corrupt and cannot be fixed. Or, you might have a file that was deleted by mistake. When you restore the file, you might lose information entered since the backup.

The procedure for restoring a single file or directory from tape is explained in your backup software manuals or UNIX manuals. If the backup was made using the Spillman backup script, Spillman Technical Services can assist you. If the backup is made with other software, refer to the software manuals for the commands.

### **Restoring the full system**

Performing a full system restore requires additional, preliminary work. If your system or hardware must be replaced or reloaded, you need the full system tapes. Each system has different instructions. Please refer to them. Perform a full system restore for hard disk failure, replacement, or operating system failure.

Because of system differences, you must consider the following questions:

- Do you have a bootable backup tape/diskette or an emergency boot tape/diskette?
- Do the instructions in your operating system manual tell you to load a basic operating system before restoring?

Consult your operating system manuals and your hardware and software people for the tasks you must complete before the restore.

### **Booting from tapes or diskettes**

If you have a bootable tape, follow the instructions in the operating system manuals. The basic steps should include: booting the computer from tape, loading the tape on the hardware, and rebooting the computer. These procedures necessitate changing ports, users, and passwords to what they were at backup time. You might have to load a more recent full system backup.

If you have a bootable diskette, you might be able to boot the computer from diskette and then restore the backup tape to the hard disk.

### **Loading the operating system**

The operating systems manual should provide instructions for loading the operating system.

Things to consider when restoring a full system, non-bootable tape:

- Most systems cannot overwrite a file that is open.
- The UNIX kernel file and the backup program cannot be restored.
- You might have to generate a new kernel to reload the correct devices.

Please follow the operating system instructions when the system will not boot.

### **Temporarily restoring entire system to a different computer**

If your system goes down and your hardware vendor determines that the down time will be long, you can move the basic software to a different computer to continue emergency operations. If your agency needs to be on line as soon as possible, request this type of restore. This procedure requires additional hardware and a computer staff that can handle the tasks outlined below.

You must consider the following:

- Is the replacement machine compatible with the original?
- Will you move to a different hardware platform?

### Moving the operating system to compatible hardware

If both systems have the same hardware, the procedure is fairly simple. You load an operating system on the hardware and then load the software and data files. Load the Spillman software from a full system backup, or create a special backup of the Spillman executables needed.

#### NOTE

Please remember that the Spillman software is proprietary software. A backup of the software is allowed only for the purpose of reinstallation on your system in the event of a hardware or software crash.

To make a special files backup tape, back up the following directories.

```
/usr/local
|-- /bin
|-- /lib
/sds
|-- /force
|-- /indb
|-- /extcom
```

To find the exact path to the directories for Flex executables, log in to the software and shell out. Enter **echo \$FORCEDIR** and **echo \$INDBDIR** to see where they are located on your system. They might be in /var/force, /var/indb, /u/force, /u/indb, /users/force, /users/indb, /opt/force, /opt/indb, or other locations. If you back up the force directory, you might want to exclude the dat directory. You should have a current dat directory backup from daily backups to use on reinstallation.

### Moving the operating system to a different hardware platform

Moving your operating system to a different platform requires new software and data conversion at additional cost and time. If much data has to be converted, the conversion can take several days. Spillman Technical Services must follow current hardware upgrade policies. Spillman Technologies does not recommend moving the operating system to a different platform.

### Other considerations regarding the backup computer

Before moving your operating system to a backup computer temporarily, consider the following:

- If the backup computer is being used for another system, will you take over the whole machine or just load the software? Make sure to back up the machine in the original state, if possible.

- Will you need to delete old software to make room for the software? If you have a bootable tape that will load the whole system, you can preserve the complete file system.
- Are the hard disks the same size?
- Can the computers connect to the machine?
- How many ports will you have?
- Will you need to redefine hardware, printers, and tape drives?
- Will you have to create user accounts, printer queues, network connections, or radiolog ports?
- Will you need to back up the executable file from the original computer and transfer it to the new computer?

Each type of backup targets a certain set of files for backup. The full system backup copies everything on the disks. The database backup backs up only the .dat and .idx files in the force/dat directory—only the data that you have been entering. If you are restoring a database backup to a different computer, you must back up the executable file from the original computer and restore it to the new computer so that you can run the software.

- In the software, will you have to reconfigure radiolog ports, cdtty file, or e911 setups?

## ***Setting Up the Spillman Backup Script***

During setup of the software, you must set the software backup block, the tape sizes, and the backup device type. The computer needs this information in order for the Spillman backup script to properly perform the database backup.

You change backup block, tape size, or backup device information only if:

- Your software is upgraded to a new version. (In this case, you must reset the old information.)
- Your agency purchases a new backup device to replace the old one. (In this case, call Spillman Technical Services and have this information reset in the Spillman backup script. If this information is not set correctly, you cannot complete the backup.)



# Chapter 11

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## *Spillman Maintenance*

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## Overview

This chapter describes several tasks you will perform in maintaining the software. Depending on the size of your agency, you can expect to spend as much as 25 hours a week on maintenance tasks.

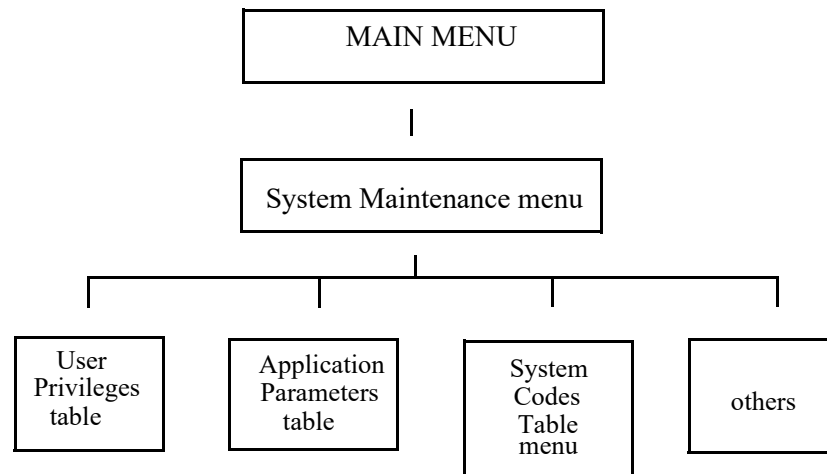
You can make a schedule to help you manage the software. The schedule should include general SAA tasks, security tasks, and distribution dates for reports. A sample schedule is provided in this chapter.

### Accessing maintenance programs

You can access any maintenance program either by going through the menus or by entering the program name at the command line on any Flex menu.

#### Accessing programs through the menus

The following illustration shows the menus by which you can access the maintenance programs that SAAs use most frequently.



If you discover that you use certain programs more often, you can modify the System Maintenance menu or create a new one specifically suited to your own needs. For instructions, see [“Changing or Adding a Menu” on page 281](#).

When you are in a program, its table name appears in the upper left corner of the screen. For example, the upper left corner of the Field Interviews screen displays `fimain`. Similarly, the upper left corner of the Names table displays `nmmain`.

**Accessing programs by program name**

You can access any maintenance program by entering its program name at the command line. When you press Enter after entering the program name, you go directly into the program, bypassing the menus.

You can use the Run function key or the **Run** button anywhere in the software. For example, suppose that you are entering search data in the Law Incident Summary Report program and you need information from the Law Incident table. You can press Run, even in the middle of a field, and then type **law** and press Enter. The software goes to the Law Incident table. When you exit that table, the software returns you to your place in the Law Incident Summary Report screen.

**Using caution when accessing maintenance programs**

As a Super User, you can access any program and perform any function in it. This level of access is necessary so that you can maintain the software, correct errors, and alleviate problems. However, choose carefully the programs you access and the functions you perform in those tables.

Also, enable SU only as long as necessary to perform a specific task that requires it. See the *Security Setup and Maintenance Manual*.

Use particular caution with your abilities to delete information and use SQL as a data auditing tool.

**CAUTION**

Access only those programs that have been explained to you by this manual or by Spillman Technical Services personnel. Some programs can harm data if used incorrectly.

***Printing screens before and after modifying software***

As an SAA, you can to some extent modify the software to meet the specific needs of your agency. For example, you can change the help screens and modify or add application cue cards. In Advanced Spillman Application Administration training, you will learn how to write your own reports and change the way fields appear on the screen.

None of your software modifications is saved when you upgrade to a new version of the software. Therefore, keep a record of all changes you make. Print any report scripts you create, help screens you change, application cue cards you add or modify, menus you modify or create, and screens you paint. After upgrading to a new version of the software, you must reenter all the changes. For instructions, see [“Printing Blank Screens” on page 69](#).

You might also want to print the screens *before* making modifications.

## Sample Maintenance Schedule

Following is a sample schedule. It lists each maintenance task, along with the name of the program used to perform the task.

Adjust the schedule to fit your needs, ignoring tasks for which you do not have the associated module. The dates assume that January 1 is the beginning of the budget year.

### CAUTION

Be careful about the programs you access. Some of the programs can harm data if used incorrectly. Know what you are doing.

Enter **sh** at the command line if you need to exit to the UNIX shell to do system maintenance or other UNIX tasks. The **sh** command takes you to a UNIX \$ prompt.

| Maintenance Task                                                                                                                                                  | Description of Program/Menu You Use             | When (or Under What Conditions) to Perform Task |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Perform a backup of the Flex database. Maintaining up-to-date backups is vital to the safety of your data. See “Backups” on page 227.                             | Backup Database of Full System (backup)         | Once a month                                    |
| Make sure data conforms to UCR requirements. See “UCR” on page 385.                                                                                               | Law Enforcement Records Management module (Law) | Once a month                                    |
| Run <b>ucr</b> , which compiles UCR reports based on information gathered in the Law Enforcement Records Management module.                                       | Uniform Crime Report (ucr)                      | Once a month                                    |
| For property recovered over time, clear the <b>Amount Recovered</b> field and the <b>Accum Amt Recovd</b> field in the Property record and enter the new amounts. | Property table (property)                       | Once a month                                    |
| Change SAA passwords. See the <i>Security Setup and Maintenance Manual</i> .                                                                                      | Flex’s password utility                         | Once a month                                    |
| Distribute Premises Information forms to officers.                                                                                                                | —                                               | January 1 and July 1                            |
| Submit the Data Processing Budget for next year.                                                                                                                  | —                                               | October 1                                       |
| Clean computer hardware. See your hardware documentation.                                                                                                         | —                                               | Occasionally                                    |
| Check remaining disk space. See “Monitoring Memory Use and Disk Space” on page 266.                                                                               | UNIX <b>df</b> command                          | Occasionally                                    |

| Maintenance Task                                                                                                                                                                                                                                                                                                                                                               | Description of Program/Menu You Use                               | When (or Under What Conditions) to Perform Task                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Update any customized help screens.<br>All help messages, which are stored in the Help Messages table, are overwritten by default messages during a software upgrade. See <a href="#">“Changing a Help Screen”</a> on page 275.                                                                                                                                                | Help Messages table (syhelp)                                      | As needed and after an upgrade                                                                                                                            |
| Add/change menus.<br>Sypgm lists all programs, tables, and menus used by the software. Customized menus are overwritten in a software upgrade. See <a href="#">“Changing or Adding a Menu”</a> on page 281.                                                                                                                                                                    | Program/Menu Definition (sypgm)                                   | As needed and after an upgrade                                                                                                                            |
| Update customized application cue cards (usually outlines for text narratives). Customized cue cards are overwritten in a software upgrade. See <a href="#">“Maintaining Application Cue Cards”</a> on page 285.                                                                                                                                                               | Application Cue Card table (apccard)                              | As needed and after an upgrade                                                                                                                            |
| Modify incident reporting methods. See <a href="#">“Changing the incident reporting system”</a> on page 289.                                                                                                                                                                                                                                                                   | Application Cue Card table (apccard)                              | As needed                                                                                                                                                 |
| Reset date/time. See <a href="#">“Resetting the Date/Time”</a> on page 264.                                                                                                                                                                                                                                                                                                    | Operating system date command, operating system timezone variable | As needed to keep date/time accurate                                                                                                                      |
| Skip a record number.<br>Synxtids stores all software-generated sequential record numbers. You can change the format of a table’s record numbers only during setup. When adding records, you can skip a record number if necessary to match the record numbers of a court or other governmental agency. See <a href="#">“Skipping a record number in a table”</a> on page 312. | Next Record Numbers table (synxtids)                              | Only if necessary to skip a record number                                                                                                                 |
| Run the resndx cleanup program to update the soundex feature for the Names table.<br>Updating soundex ensures that searches made with the Sounds Like option retrieve the correct data. See <a href="#">“(resndx)”</a> on page 273.                                                                                                                                            | Update Last Name Soundex Keys (resndx)                            | If you change the value of soundex or if soundex does not seem to be functioning correctly                                                                |
| Run the gbsndx cleanup program to update the soundex feature for the geobase street aliases. Running gbsndx ensures that searches of the geobase retrieve the correct data. See <a href="#">“gbsndx”</a> on page 273.                                                                                                                                                          | Update Geobase Soundex Keys (gbsndx)                              | If you have Geobase and either you change the value of the soundex parameter or soundex does not seem to be functioning correctly in address verification |
| Run the gbrekey cleanup program to update the X/Y “keys” to ensure that the software correctly reads your X/Y-coordinate system. See <a href="#">“gbrekey”</a> on page 274.                                                                                                                                                                                                    | Rebuild Geobase X/Y Keys (gbrekey)                                | Each time you update your geobase, either manually or through MapInfo                                                                                     |

| Maintenance Task                                                                                                                                                                                                                            | Description of Program/Menu You Use                                                                      | When (or Under What Conditions) to Perform Task                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| Print blank screens. Run the program containing the screen, and press Alt+Print Scrn at the screen. See <a href="#">“Printing Blank Screens” on page 69.</a>                                                                                | —                                                                                                        | Before and after customizing any screens; after you add a new module               |
| Check use of memory, using the appropriate operating system command.                                                                                                                                                                        | —                                                                                                        | Occasionally                                                                       |
| Add and retire users in Flex.                                                                                                                                                                                                               | System Privileges screen (sypriv), Official Names Code table (apnames)                                   | As needed                                                                          |
| Train new users, ensuring user proficiency with the software.                                                                                                                                                                               | Flex tutorial                                                                                            | As needed                                                                          |
| Add a printer definition file in \$PRINTERS for each printer the software must recognize. See <a href="#">“Defining Printers” on page 327..</a>                                                                                             | Text editor                                                                                              | At setup (if your agency uses multiple printers) and after you add a printer       |
| Modify application parameters to meet your agency’s needs. For example, if you have the Geobase module, set the geobase parameter to true. See <a href="#">“Setting Up Application Parameters Common to All Modules” on page 112.</a>       | Application Parameters table (apparam), Jail Parameters table (jparms), System Parameter table (syparam) | After you add a new module or if you must change the value assigned to a parameter |
| Maintain individual modules. See <a href="#">Chapter 4, “Module Setup,” which begins on page 181</a> , the <i>Security Setup and Maintenance Manual</i> , the Online Help, and the <i>Code Table Setup and Maintenance Manual</i> .         | Application Parameters table (apparam), code tables                                                      | As needed                                                                          |
| Modify security.<br>The System Privileges screen lets you grant and deny privileges to users, groups, and the “world” for all programs in Flex. See the <i>Security Setup and Maintenance Manual</i> .                                      | System Privileges screen (sypriv)                                                                        | As needed and after you add or remove a user                                       |
| <b>Run</b> fixpartn only if your agency uses agency partitioning, to update agency partitioning of current records. Fixpartn works with other partitioning programs in the software. See the <i>Security Setup and Maintenance Manual</i> . | Agency Partition Program (fixpartn)                                                                      | After changing agency partitioning and as needed                                   |

| Maintenance Task                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Description of Program/Menu You Use   | When (or Under What Conditions) to Perform Task |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------|
| Eliminate duplicate name records.<br>Namemerg finds possible duplicate name records (excluding alias records) by searching for identical Social Security Numbers, first and last names, dates of birth, FBI numbers, state ID numbers, and driver's license numbers. The program then merges the duplicate name information into one real Name record. You have the option of retaining duplicate records as alias records. See "Eliminating Duplicate Names" on page 345. | Name Audit and Merge (namemerg)       | Occasionally                                    |
| Find (and eliminate if desired) duplicate vehicle records by comparing the license numbers or Vehicle Identification numbers. See "Eliminating Duplicate Vehicles" on page 357.                                                                                                                                                                                                                                                                                            | Vehicle Table Audit report (rpvhvtar) | Occasionally                                    |
| Solve/report problems. See Chapter 13, "Support and Troubleshooting," which begins on page 371.                                                                                                                                                                                                                                                                                                                                                                            | —                                     | As needed                                       |
| Modify code tables. Run tabout to print code tables. This program accesses any table (that is not variable length) that matches the data you enter in the <b>Table Name</b> field. It prepares a generic report script for that table and selects every record from that table as the body of the report. See the <i>Code Table Setup and Maintenance Manual</i> .                                                                                                         | Print Code Tables (tabout)            | As needed                                       |
| Modify report heading. See the <i>Code Table Setup and Maintenance Manual</i> .                                                                                                                                                                                                                                                                                                                                                                                            | Agency Codes table (apagency)         | As needed                                       |

The following reports can help you obtain information that you might need when doing maintenance:

- Nested Symenu reports (rpmenu)—Lists program names, sorted by menu.
- System Pgm reports (rppgm)—Lists all tables, with names of executable files and descriptions of programs.
- System Tables report (rptables)—Lists all tables in the software.
- System Schema reports (rpschema)—Lists field information about all fields that match specified criteria.

The next section explains how to run the reports.

**CAUTION**

The reports include programs that are used by the programmers who created the software. Never access these programs. You might damage the software or your agency's data.



## Getting Names of Programs, Tables, Fields

This section describes how to print reports that list program and table names. It also tells how to use the Help key (Ctrl+W) to display complete field names (in the format `table.field`) and how to print information about several fields that match criteria you supply.

### Printing a list of program names

To run a program without going through the menus, you must enter the program name. To print a list of program names, use one of the following programs:

- `rpmenu`, which sorts the programs by menu
- `rppgm`, which lists the programs in alphabetical order

#### **rpmenu**

The `rpmenu` program lists all menus and the programs in each menu. Each program name is followed by the name of the executable file and a description of the program.

The list includes the software maintenance programs, which only you will use, and all the available modules, even those modules your agency does not have.

#### **CAUTION**

The `rpmenu` list includes programs that are used by the programmers who created the software. Never access these programs. You might damage the software or your agency's data.

To print the `rpmenu` report, follow the steps below:

1. Make sure the printer is ready. The report will take multiple pages.
2. At the command line, enter **`rpmenu`**.

The software opens the Nested System Menu Report screen.

3. Click **Print** (Alt+P).

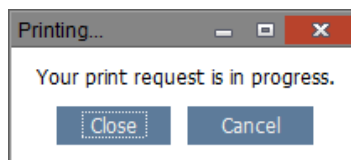
If the `askrptlg` application parameter is set to **YES**, the screen displays the prompt `who is it for?` Enter any reminder text, and then click **OK**. The software then displays the prompt `what is the purpose?` Enter any reminder text, and click **OK**.

The **Print** dialog box opens.

4. Set your printing options. See the Online Help for more information.

5. Click **Print** (Alt+P).

The following dialog box appears.



After processing the information, the software removes the dialog box and sends the information to the selected destination. To close the dialog box before the information is processed, click **Close** or press Enter. To cancel the print request, click **Cancel**. (If you click **Cancel**, the software notifies you that the print job has been canceled.)

**rppgm**

The `rppgm` report lists, in alphabetical order, all program names. Each program name is followed by the name of its executable file and a description of the program. Unless you limit the report, it includes the software maintenance programs, which only you will use, and all available modules, even those modules your agency does not have.

**CAUTION**

The `rppgm` list includes programs that are used by the programmers who created the software. Never access these programs. You might damage the software or your agency's data.

You can limit the `rppgm` report by entering information in any of the following fields: **Program/Menu Name**, **Executable Containing Program/Menu**, **Program Description**, **Menus with these Programs**, or **Programs in these Menus**.

To print the `rppgm` report, follow the steps below:

1. Make sure the printer is ready. The printout will take multiple pages.
2. Enter `rppgm` at the command line.

The software opens the System Program Report screen.

3. Select the format for the report. This report program offers the following formats:

- rppgm.r1               SYPGM LISTING
- rppgm.r2               SYPGM LISTING NO HEADER
- rppgm.r2.ba           FORCE 3.0 SYPGM LISTING

4. Enter the search criteria as desired. All fields are optional.

The software lets you use wild card characters when entering search data. For example, to print a listing of most code table program names, you can enter **tb\*** in the **Program/Menu Name** field because almost all code table program names begin with tb.

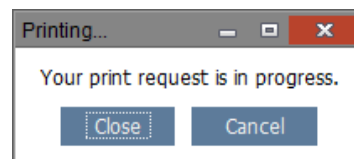
5. When you finish modifying the output parameters, click **Print** (Alt+P).

If the askrptlg application parameter is set to **YES**, the screen displays the prompt *who is it for?* Enter any reminder text, and then click **OK**. The software then displays the prompt *what is the purpose?* Enter any reminder text, and click **OK**.

The **Print** dialog box opens.

6. Set your printing options. See the Online Help for more information.
7. Click **Print** (Alt+P).

The following dialog box appears.



After processing the information, the software moves the dialog box and sends the information to the selected destination. To close the dialog box before the information is processed, click **Close** or press Enter. To cancel the print request, click **Cancel**. (If you click **Cancel**, the software notifies you that the print job has been canceled.)

## Printing a list of table names

Some maintenance tasks require you to enter a table name instead of a program name. For example, you must enter a table name to define security for a table accessed through the Involvements screen. You must also enter a table name during setup when changing the record number format of a particular table. To obtain a list of table names, run the System Tables Reports (rptables).

The report will list programs that you should *not* access because you might damage the software or your agency's data.

The program pulls information from the sydtabs table. You can limit the contents of the report by entering certain search data under **Table Attributes** or **Index Attributes**. You can use wild card characters and search options when entering search data.

To run the rptables report, follow the steps below:

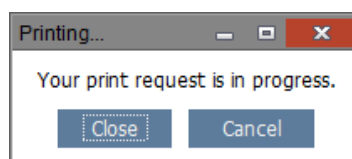
1. Make sure that the printer is ready. This report will take up multiple pages.
2. Open the System Tables Reports program by entering **rptables** at the command line.
3. In the **Format** area, select the format in which to run the report.
4. Enter any search criteria in the fields, and then click **Print**.

If the askrptlg application parameter is set to **YES**, the screen displays the prompt *who is it for?* Enter any reminder text, and then click **OK**. The software then displays the prompt *what is the purpose?* Enter any reminder text, and click **OK**.

The **Print** dialog box opens.

5. Set your printing options. See the Online Help for more information.
6. Click **Print** (Alt+P).

The following dialog box appears.



After processing the information, the software removes the dialog box and sends the information to the selected destination. To close the dialog box before the information is processed, click **Close** or press Enter. To cancel the print request, click **Cancel**. (If you click

**Cancel**, the software notifies you that the print job has been canceled.)

## Displaying names of tables and fields

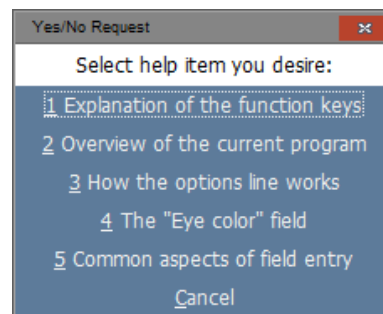
Some maintenance tasks require you to enter the complete name of a field (the table name plus the field name) of a field. For example, in the System Privileges screen (`sypriv`) you must enter the complete field name to deny a particular user or group access to a specific field. Use field help as follows to find out names of tables and fields:

1. At the command line, enter the program name of the screen that displays the information you want. For example, to learn the complete name of the **Eyes** field, enter **names**.

The specified screen appears, with blank fields.

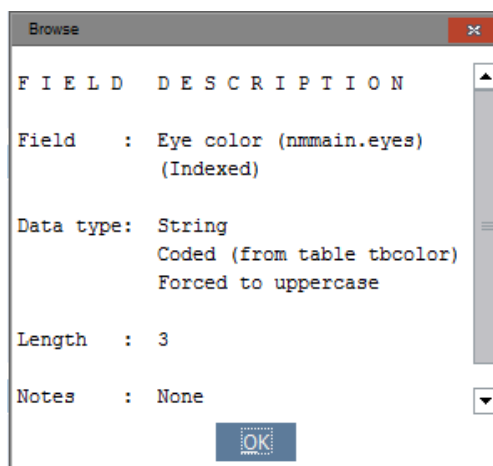
2. Click **Srch** and move your cursor to the field whose table and system field name you want to know. Then, press **Help** or (**Ctrl+W**). For example, move the cursor to the **Eyes** field and press **Help**.

A help box appears, offering options similar to the following:



3. Press **4** to choose help on the field. For example, press **4** to choose The Eye Color field.

A Field Description box appears:



Note that if the field is referenced or coded, the table name of the code table is displayed.

4. Write down the table and system field name.
5. Press Enter to remove the help box from the screen.
6. Click **Cancel** (Ctrl+C) to cancel the search.

## ***Printing information about fields matching specific criteria***

Using the System Schema Reports (rpschema), you can print field information about all fields that match specific criteria you enter. You can restrict the report to:

- Fields in a certain table
- Fields of a certain name or description
- Fields of a certain type or size
- Fields referencing a certain key

The report has four available formats, described in the following section.

**rpschema.r1 and  
rpschema.r2**

Formats `rpschema.r1` and `rpschema.r2` order information by table name and number. Both formats include the following information for each field: field name, reference key (in the case of a coded field), type, length, and description. This information is especially valuable when you use SQL.

**NOTE**

If you print a schema listing for all tables/fields in the database, the printout will be very long. Make sure that the printer is well supplied with paper.

**rpschema.r3**

Format `rpschema.r3` provides system reference key connections. A reference key is the field to which another field is coded. For example, the **City** field in many tables is coded to the field `apcity.name` in the City Codes table. Therefore, the reference key for the **City** field is `apcity.name`. Use format `rpschema.r3` to find all fields that reference a certain field.

For example, to list all fields that reference (are coded to) the **Name Number** field, enter `nummain.number` in the **Variable Name** field at the System Schema Reports screen. Then, select `rpschema.r3` as the report format. The resulting report provides the field name and description of all fields that are coded to the **Name Number** field.

**rpschema.r4**

Format `rpschema.r4` provides the same information as format `rpschema.r1`, plus field index and segment information.

## Resetting the Date/Time

In the software, the current time and date appear at the top of the screen. Occasionally, you might need to reset the date and time to keep them accurate. This is very important because the software automatically inserts the current date and time in many places in the software

If the clock slows down or speeds up, contact you hardware vendor.

### Changing time zone variables

To change the time for daylight savings, you must reset the timezone variable. Consult your operating system manuals for “timezone” or “TIMEZONE.” Timezone sets an environment variable called TZ that is used throughout the UNIX system. Be very careful when changing it. If you need help, consult your operating system vendor.

### Using the date command

To set the date and time, follow these steps:

1. Log in as root.
2. Make sure all users are logged off the system.

Use the UNIX `who` command to make sure that no non-Flex user is logged on to the system. The UNIX `who` command does not show Flex processes. To check that no Flex user is logged on to the system, enter:

```
ps - cf | grep xcurservers
```

3. To see the current time and date, at the UNIX prompt, type `date` and press Enter.
4. Refer to your operating system documentation, and enter the appropriate UNIX date command to change the date and time:
  - HP, AT&T, and ESIX operating systems use the format `date mmddhhMM[yy]`. The values for this command are as shown below. For example, if you enter `date 10081045`, the date/time appears as October 8, 10:45 AM.

`mm` = month (01 to 12)

`dd` = day of month (01 to 31)



**hh** = hour on 24-hour clock (00 to 23)  
**MM** = minutes (00 to 59)  
**yy** = year (current two-digit value)

- Sun operating systems use the format **date [mmdd]hhMM** or **date mmddhhMMyy**.
- IBM operating systems use the following format **date mmddhhMM[.ssyy]**, where **ss** represents seconds (00–59).

Some systems let you change the date when you start up the computer. The format at this time might differ from the formats described above. The system usually displays a prompt with the correct format.

## ***Monitoring Memory Use and Disk Space***

It is important to monitor your use of both disk space and memory. Running the software with insufficient memory can slow it down significantly. To avoid running short of memory, monitor memory occasionally and plan for your future needs. Completely filling a hard disk also can cause problems. Refer to your operating system documentation for the proper command to use to check memory use.

## Using the Connection Manager

The Connection Manager provides an easy way to see who is logged into the server and to prevent other users from logging in. For example, you might use the Connection Manager see whether an officer forgot to log off Flex or to determine who might have a record locked.

To use the Connection Manager:

1. Open Internet Explorer.
2. In the **Address** field, type the path to the database (server). A sample path is:

**`http://wintrnsrv:4081/Spillman/ConnectionManager`**

3. In the **Connect to** dialog box, enter **ADMIN** or the user name of any user who belongs to the ADMIN group in Flex.

The screen for the Connection Manager appears, listing the user names of the logged-in users and the IP addresses of their computers.

4. To prevent other users from logging in, you can click the **Stop** button on this screen. If a user who is not authorized to use the connection manager then tries to login, the screen displays the following message:

Access to the requested resource has been denied.

Stopping the Connection Manager does not affect the users who are already logged in.

## Using Flex Utilities to Log User Activity

The Flex utilities let you perform the same functions as the `who`, `last`, and `utmp` UNIX utilities.

When a user starts the software, the utilities create a temporary log file for that session. This ASCII text file is stored in the `$SPILLMANDIR/log/status` directory on your UNIX server and is deleted when the user exits the software.

The log file stores the following information about each session:

- The Flex version number
- The Time the session started
- The IP address of the computer
- The time the session ended
- The user's UNIX login name
- The UNIX process ID

The following shows a sample log record.

```
Spillman Terminal Emulator
$ spillmanstat -u train1
One moment please...
Spillman Login Logging
User Name PID IP Address Login Date/Time Logout Date/Time

train1 442460 10 02/17/11 09:59:05 logged in
train1 475234 nat 02/17/11 09:01:56 logged in
train1 499828 nat 02/17/11 08:56:14 logged in
$
```

To save the information, create a file named `history` in the `$SPILLMANDIR/log/status` directory. The software saves the information from all log files to this history file. You can create more than one history file. For example, you can create a history file that saves all entries for a specific user.

In the log file, the end time is the same as the start time. In the history file entry, the end time is the actual time the user exited the software.

To use the utilities:

1. Access the UNIX shell. The terminal emulator appears.
2. At the UNIX \$ prompt, enter one of the following utilities:

| Enter                                       | To                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>spillmanstat</b>                         | Display a list of all current sessions.                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>spillmanstat -i</b><br><i>IP address</i> | Display a list of current sessions for the specified IP address.                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>spillmanstat -u</b><br><i>user name</i>  | Display a list of current sessions for the specified user.                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>spillmanstat -h</b><br><i>{number}</i>   | Display a list of current sessions and historical sessions, with the most recent session first. By default, the software displays the 50 most recent sessions. To display a different number, enter the number of sessions. For example, enter <b>-h 200</b> to display the last 200 sessions.                                                                                                                                                       |
| <b>spillmanstat -s</b>                      | Display past sessions as listed in the history file, with the most recent session first. If you enter <b>spillmanstat -s</b> , the software displays the last 50 sessions. To display a different number, combine the <b>-s</b> and <b>-h</b> options. For example, enter <b>spillmanstat -s -h 200</b> to display the last 200 sessions.                                                                                                            |
| <b>spillmanstat -l</b><br><i>{number}</i>   | Display a list with the specified number of failed login attempts. By default, the software displays the 50 most recent failed login attempts. To display a different number, enter the number of attempts. For example, enter <b>spillmanstat -l 200</b> to display the last 200 failed login attempts.<br><br>To save information about failed login attempts, create a file named <b>failed</b> in the <b>\$SPILLMANDIR/log/status</b> directory. |
| <b>spillmanstat -help</b>                   | Display a list of the utilities (as listed in this table).                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>spillmanstat -v</b>                      | Display the version of the spillmanstat program. The <b>-v</b> option is provided for use by Spillman Technical Services.                                                                                                                                                                                                                                                                                                                            |
| <b>spillmanstat -f</b><br><i>file name</i>  | Display a specific history file instead of the default file. In the <b>\$SPILLMANDIR/log/status</b> directory, you can save a file that contains a user's historical records and then view that file by using the <b>-f</b> option.                                                                                                                                                                                                                  |
| <b>spillmanstat -d</b>                      | Display a list of any invalid sessions.                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>spillmanstat -r</b>                      | Remove all invalid sessions.                                                                                                                                                                                                                                                                                                                                                                                                                         |

You can combine several options. For example, to see the last 100 log entries for user `Train1`, enter:

```
spillmanstat -u train1 -h 100
```

To see the last 20 failed login attempts for user `bsmith`, enter:

```
spillmanstat -l 20 -u bsmith
```

## Archiving and Deleting System Log Records

The Dump System Log Records report (`rpsldump`) and the Delete System Log Records report (`rpsldel`) help you maintain your System Log table (`sylog`). Run both these reports regularly to archive `sylog` records and then delete them from the `sylog` table.

1. Use one of the following methods to run the Dump System Log Records report:
  - Enter **rpsldump** at the command line.
  - From the System Maintenance menu, select Data Maintenance Menu. Then, select Dump System Log Records.

The Dump System Log Records report screen appears.

2. Enter search criteria to indicate the log entries that you want to archive.

No search criteria are required. However, it is recommended that you enter a date range to limit the report. Otherwise, the report takes a long time and uses a large amount of memory.

3. In the **Format** area, select one of the following formats:
  - `rpsldump.r1` to dump `sylog` records into a standard report format recommended for hard copy printouts.
  - `rpsldump.r2` to dump `sylog` records into a file for later use. Spillman Technologies recommends this format for tape archival. Specify a file as the destination. Later, you can save the file to tape by using the UNIX command `tar` or `cpio`.
4. Click **Print** to open the **Print** dialog box.
5. Click **Print** again to dump the `sylog` records.
6. Use one of the following methods to run the Delete System Log Records report:
  - Enter **rpsldel** at the command line.
  - From the System Maintenance menu, select Data Maintenance Menu. Then, select Delete System Log Records.
7. Enter the same search criteria as in step 2.
8. In the **Format** area, select `rpsldel.r1`.
9. Click **Print** to open the **Print** dialog box.

10. Click **Print** again to delete the specified records from the System Log table.



## Running the Cleanup Programs

This section describes when to run cleanup programs. Each program tells you how many records it updates. If no records need updating, you might run the program less often. If several records need updating, you might run it more often. To run a cleanup program, enter the program name at the command line.

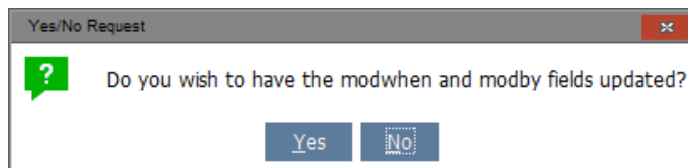
### (resndx)

#### Update Last Name Soundex Keys

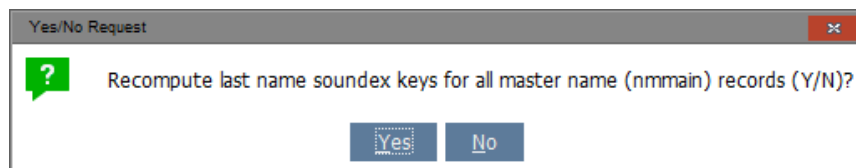
The `resndx` program updates the `soundex` feature for the `Names` table to ensure that searches made with the `Sounds Like` search option retrieve the correct data. Run this program if you change the value of the `soundex` application parameter or if `soundex` does not seem to be working correctly.

To update Last Name Soundex Keys:

1. At the command line, enter `resndx`. The following prompt appears:



2. Click **Yes** or press Enter to update the `Names` table modification time. The following prompt appears:



If you click **Yes**, the screen displays a running tally of the `Name` records processed. When finished, it lists the number of records that required no change and the number of records successfully changed.

If the software alerts you that errors exist, you can view the errors in the master log. To do so, go to the `$` prompt and enter the following command:

```
mlv -p resndx
```

Write down the errors listed, and contact Spillman Technical Services.

### gbsndx

#### Update Geobase Soundex Keys

Run the `gbsndx` program only if your agency uses the Spillman Geobase feature. This program updates the `soundex` feature for the geobase street aliases to ensure that searches of the geobase retrieve the correct data. Run this program if you change the value of the `soundex` application parameter or if `soundex` does not seem to be functioning correctly in address verification. For instructions, see the Geobase Manual.

**gbrekey**

Rebuild Geobase X/Y keys

Run the `gbrekey` program only if your agency uses the Spillman Geobase feature. This program updates the X/Y keys to ensure that the software reads your coordinate system correctly. Run it every time you update your geobase, either manually or through MapInfo. For instructions, see the Geobase Manual.

## Changing a Help Screen

When the software is installed, help screens are available for the fields, function keys, and options. A user can view the help screen for a particular item by moving to that item and pressing the Help key (Ctrl+W). A window appears, showing the help options available. The user selects a help option, and the software displays the appropriate help screen. You can edit or replace these help screens to customize the information to your agency.

NOTE

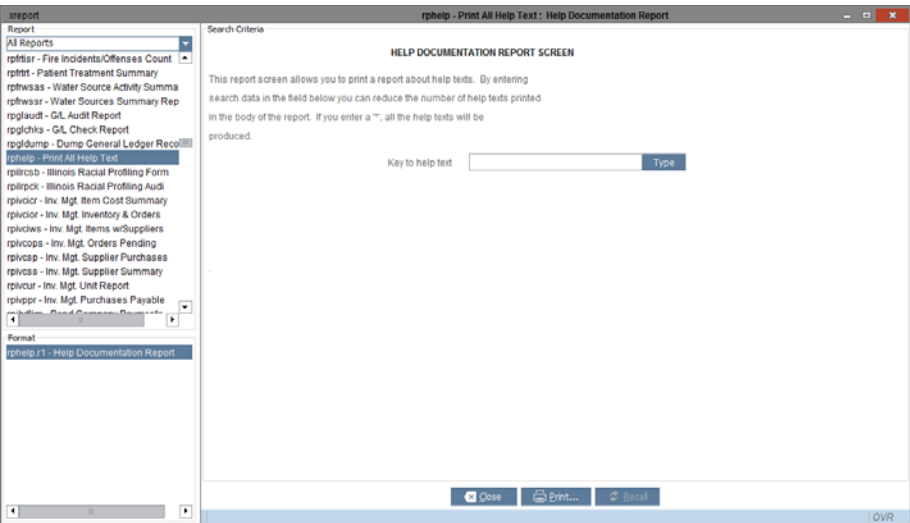
Keep track of any changes you make to the help screens. The changes are erased when you upgrade your software, and you will have to re-enter them.

### Printing help screens

You might want to print the help screens to determine which ones you want to change. Follow these instructions to print help screens:

1. Enter **rp~~h~~elp** at the command line.

The following screen appears.



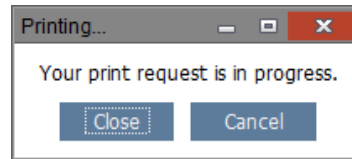
2. You can limit the contents of the report by entering data in the **Key to help text** field. For example, to print the help screen for each button, enter **option\***. The report includes the help texts for all the buttons.
3. Click **Print** (Alt+P).

If the `askrptlg` application parameter is set to **Yes**, the screen displays the prompt `who is it for?` Enter any reminder text, and then click **OK**. The software then displays the prompt `what is the purpose?` Enter any reminder text, and click **OK**.

The **Print** dialog box opens.

4. Set your printing options. See the Online Help.
5. Click **Print** (Alt+P).

The following dialog box appears.



After processing the information, the software removes the dialog box and sends the information to the selected destination. To close the dialog box before the information is processed, click **Close** or press Enter. To cancel the print request, click **Cancel**. (If you click **Cancel**, the software notifies you that the print job has been canceled.)

## ***Editing help screens through syhelp***

To edit a help screen, follow the steps below:

1. Print the help screen as described above.
2. At the command line, type **syhelp** and press Enter.

The Help Messages Table screen appears:

syhelp Help Messages Table

File Edit Search Tools Help

Exit Srch Mod Add Clr Del View List Totl Prt Back Fwd Jadd Jres

Help Messages Orig Use

Key to Help Text:

The Helpful Text

User: sds | Search for specific records OVR

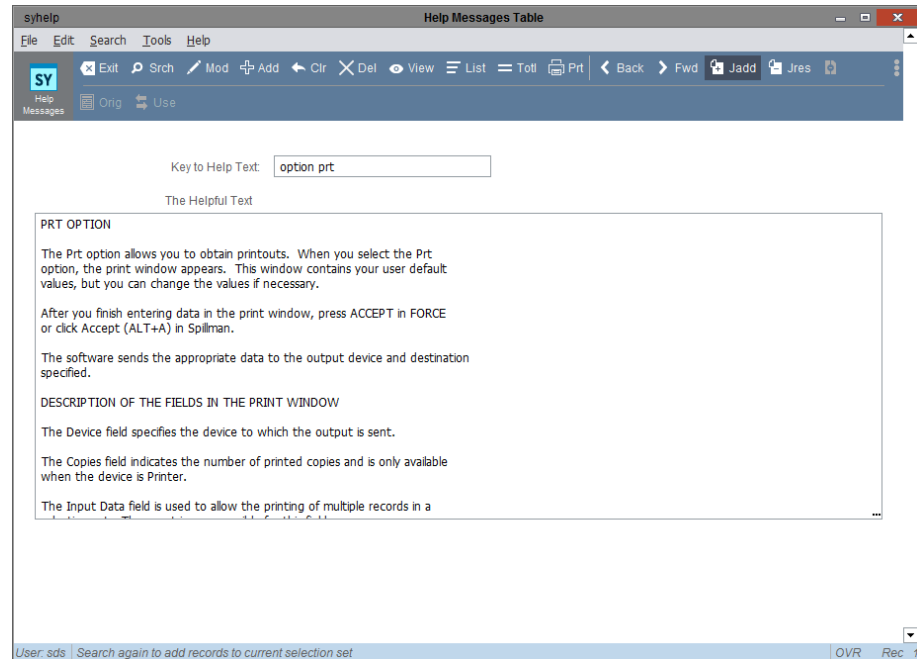
### 3. Click **Srch**.

The cursor moves to the **Key to Help Text** field.

4. Display the help screen for editing by following the appropriate steps below:

| To display the help screen for | Follow these steps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a field                        | <ol style="list-style-type: none"> <li>1. At the <b>Key to Help Text</b> field, enter <b>fld tablename*</b>, indicating the table that contains the field. Then, click <b>Accept</b> (Alt+A). For example, enter <b>fld nmmain*</b> and click <b>Accept</b> (Alt+A) to indicate that the field is on the Names screen. The screen displays the first field in the selection set (in this case, <code>nmmain.addby</code>).</li> <li>2. Select <b>List</b> to list all the fields that are on the specified screen (<code>nmmain</code>).</li> <li>3. Highlight the field whose help you want to change, and press Enter. The help screen for the selected field is displayed.</li> </ol> <p>For the names of the most commonly used tables, see <a href="#">“Changing a Table Record Numbers” on page 308</a>. For the names of all tables, run the <code>rptables</code> report program.</p> |
| the function keys              | <ul style="list-style-type: none"> <li>• At the <b>Key to Help Text</b> field, type <b>function keys</b> and click <b>Accept</b> (Alt+A). The function key help screen is displayed.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| the toolbar                    | <ul style="list-style-type: none"> <li>• In the <b>Key to Help Text</b> field, type <b>mode disppro</b> and click <b>Accept</b> (Alt+A). The toolbar help screen is displayed.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| a specific button              | <ul style="list-style-type: none"> <li>• At the <b>Key to Help Text</b> field, do one of the following: <ul style="list-style-type: none"> <li>– Type <b>option *</b> and click <b>Accept</b> (Alt+A) to search for help screens for all buttons. Click <b>List</b> to list the items in the selection set. Highlight the item whose help screen you want to change, and press Enter.</li> <li>– Type <b>option button-prompt</b> and click <b>Accept</b> (Alt+A) to search for the help screen for one button. For example, type <b>option prt</b> and click <b>Accept</b> (Alt+A) to search for the help screen for the <b>Prt</b> button.</li> </ul> </li> </ul> <p>The help screen for the selected button is displayed.</p>                                                                                                                                                              |

The help screen appears. For example, if you enter **option prt**, the following help screen appears:



5. Highlight the **Mod** button.
6. Click **The Helpful Text** field and edit the text. To open the text editor, click **Editor** (Ctrl+E)  
This is the same editor that you use at any text field (such as the Incident Narrative).
7. Edit the help screen, and exit the text editor just as you would in any text field.
8. When you finish editing help screens, exit the syhelp program by clicking the **Exit** button.

## Editing help screens on line

With SU enabled, you can edit help screens without entering syhelp. You simply display the help screen, enter the text editor, and begin editing:

1. Log in, and enable SU by entering **su** at the command line. (Refer to the *Security Setup and Maintenance Manual* for additional information on SU.)

2. Access the help screen you want to edit. (Display the help screen just as if you were simply viewing it.)
3. Press Ctrl+E to enter the text editor. This is the same editor that you use at any text field (such as the **Incident Narrative**).
4. Edit the help screen, and exit the text editor just as you would in any text field.
5. Enter **su** at the command line to disable SU.



## Changing or Adding a Menu

Many SAAs like to customize the System Maintenance menus or other menus to meet the unique needs of their agencies. The `sypgm` program gives you the flexibility to do this. You can change menus in the following ways:

- By adding programs/submenus to an existing menu
- By moving programs/submenus to a different menu
- By creating new menus

For example, you can create a System Maintenance menu just for your assistants and limit this menu to those programs you want your assistants to use. Be sure to give your assistants security privileges for that menu and the programs and submenus on it.

### NOTE

Keep track of any additions/changes you make to menus. The changes are erased when you upgrade your software, and you will have to re-enter them.

## Changing an existing menu

Use the following procedure to change a menu:

1. Access the Program/Menu Definition program by entering `sypgm` at the command line.

The following screen appears:

The screenshot shows the 'Program/Menu Definition' window. The interface includes a menu bar with 'File', 'Edit', 'Search', 'Tools', and 'Help'. Below the menu bar is a toolbar with various icons and buttons, including 'Exit', 'Srch', 'Mod', 'Add', 'Clr', 'Del', 'View', 'List', 'Totl', 'Prt', 'Back', 'Fwd', 'Jadd', and 'Jres'. The main workspace contains three text input fields: 'Program/Menu Name:', 'Executable Containing Program/Menu:', and 'Program Description:'. Below these fields is a section titled 'Items in This Menu (None if program is not a menu)' which contains a single text input field. At the bottom of the window, there is a section titled 'Menus This Program Appears In'. The status bar at the very bottom displays 'User: sds | Search for specific records' and a dropdown menu currently showing 'OVR'.

2. Click **Srch** and search for the menu you want to change.

You can specify the menu by entering its program name (up to 8 alphanumeric characters) in the first field or its program description (up to 30 alphanumeric characters) in the third field. The program description is the heading that appears at the top of the menu (for example, Main Menu). For example, to change the Main Menu, click **Srch** and enter **mainmenu** at the first field.

The Program/Menu Definition screen for the specified menu appears:

3. Click the **Mod** button.
4. Click the fourth field, **Items In This Menu**. Then, click Detail (Ctrl+N). A detail window appears, listing all the items in the selected menu.

| Seq | Program   | Description                  |
|-----|-----------|------------------------------|
| 1   | dispatch  | Dispatch Menu                |
| 2   | records   | Law Enforcement Records Menu |
| 3   | firemenu  | Fire Records Menu            |
| 4   | emsmenu   | EMS Records Menu             |
| 5   | adminutil | Sentryx Admin Manager        |

5. In the detail window, enter the program names of all tables/programs you want included in the menu. Delete the names of all tables/programs you want removed from the menu. Then, click **Exit**.
6. Click **Exit** to return to the previous screen.

## Creating a menu

Follow these steps to create a menu:

1. To access the Program/Menu Definition program, enter **sypgm** at the command line.

The **sypgm** screen appears as shown in [“Changing an existing menu” on page 281](#).

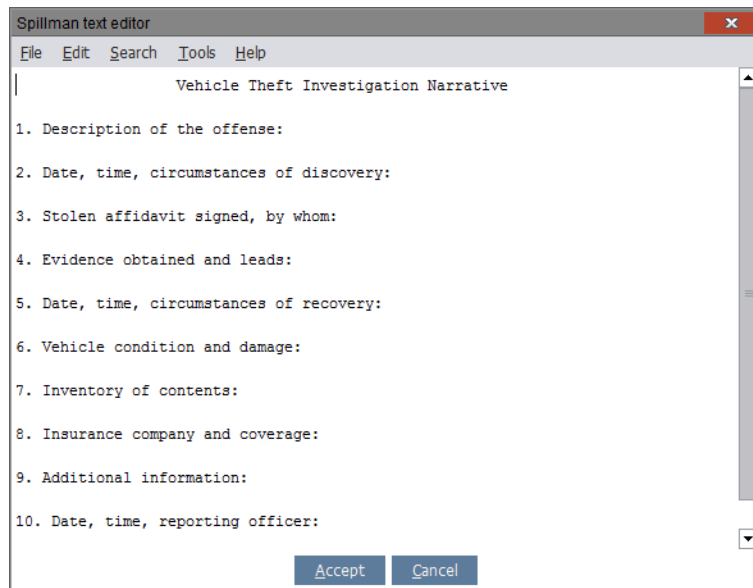
2. Click **Add**.
3. Enter the program name by which you want the computer to recognize the new menu. The program name can consist of any combination of letters and numbers (up to 8 characters). The software automatically enters any letters in lowercase.
4. Enter **\*menu** at the **Executable Containing Program/Menu** field.
5. Enter a program description at the **Program Description** field.
6. At the **Items in This Menu** field, click **Detail** (Ctrl+N) to enter a detail window.
7. In the detail window, enter the program names of any tables/programs you want to appear on this menu. Perform a Lookup to view a list of programs in the software, if necessary. When you finish entering program names, click **Exit** to exit the detail window.
8. Click **Accept** (Alt+A).
9. Modify the **sypgm** record of every menu on which the new menu is to appear. For example, if the new menu should appear on the Main Menu, add it to the **sypgm** record for the Main Menu.
10. Click **Exit** to exit the Program/Menu Definition screen.
11. If necessary, change access privileges in the System Privileges screen (**sypriv**) so that users who must access the new menu (and any menus leading to it) can do so. See the *Security Setup and Maintenance Manual*.

## Maintaining Application Cue Cards

The software comes with several application cue cards that users can access when entering information in text fields. These on-line forms serve as outlines, ensuring that users include certain essential items of information and enter the information in a consistent way.

Before entering information in a text field (such as a Narrative), a user can click **Editor** (Ctrl+E) at the field to see whether any application cue cards exist for that field. A window appears, listing the cue cards for the field. The user can select the cue card best suited to the type of information being added.

For example, when adding a Law Incident record, a user can perform a Lookup at the **Narrative** field to list the application cue cards available for that field. If adding a record for a Vehicle Theft, the user might select 18 – Vehicle Theft. The software loads the text editor and displays the selected cue card so that the user can enter information directly onto it. For example, if the user selects 18 – Vehicle Theft, the software displays the following screen:



The screenshot shows a window titled "Spillman text editor" with a menu bar containing "File", "Edit", "Search", "Tools", and "Help". The main text area contains the following text:

Vehicle Theft Investigation Narrative

1. Description of the offense:
2. Date, time, circumstances of discovery:
3. Stolen affidavit signed, by whom:
4. Evidence obtained and leads:
5. Date, time, circumstances of recovery:
6. Vehicle condition and damage:
7. Inventory of contents:
8. Insurance company and coverage:
9. Additional information:
10. Date, time, reporting officer:

At the bottom of the window, there are two buttons: "Accept" and "Cancel".

The user types the appropriate information following each cue and then exits the editor, saving the information.

The rest of this section describes how you can create or modify application cue cards in the Application Cue Card table (apccard).

### TIP

Print all application cue cards that you create or change, and keep the printouts on file. Changes to cue cards are erased when you upgrade the software, and you must re-enter them.

To help officers obtain information in an order that facilitates later entry by data entry clerks, provide officers with an Incident Reporting Handbook showing all application cue cards.

## Changing an application cue card

Cue cards already are provided for several narrative fields, including narratives for various law incidents and arrests. Each cue card is created by a record added to the Application Cue Card table (apccard). For example, the following apccard record defines the Vehicle Theft cue card described earlier.

The screenshot shows the 'Application Cue Card Table' window. The menu bar includes File, Edit, Search, Tools, and Help. The toolbar contains buttons for Exit, Search, Modify, Add, Clear, Delete, View, List, Total, Print, Back, Forward, Jadd, Jres, and Jtbl. Below the toolbar, there are tabs for Application Cue Card, Inv, Orig, and Use. The main form area contains the following fields:

- Key for Accessing Cue Cards: jmnarr.narratv
- Outline Sequence Number: 11
- Description of Outline: Vehicle Theft
- Agency: (empty field)
- Cue Card for Text Field: Vehicle Theft Investigation Narrative

The 'Vehicle Theft Investigation Narrative' field contains a list of seven items:

1. Description of the offense:
2. Date, time, circumstances of discovery:
3. Stolen affidavit signed, by whom:
4. Evidence obtained and leads:
5. Date, time, circumstances of recovery:
6. Vehicle condition and damage:
7. Inventory of contents:

The status bar at the bottom shows 'User: sds', 'Go forward in current settable', 'OVR', and 'Rec 11'.

You can view the complete list of cue cards by going into apccard and clicking **List**.

As the SAA, you can modify the existing cue cards to suit your agency's needs. If you modify the Incident Reporting Handbook, which contains the narrative cue cards, edit the on-line incident cue cards so that the software matches the handbook.

Use the following procedure to modify an application cue card:

1. Know the complete name (table name plus field name) of the text field containing the cue card.  
  
If necessary, go to that text field, and before you enter the editor, press **Help 4** (Ctrl+W 4). The help screen displays the complete field name, in parentheses. Write down the name.
2. To enter the Application Cue Card table, type **apccard** at the command line and press Enter.
3. Search for the application cue card you want to change:
  - Click **Srch** and enter the text field's complete field name (up to 16 alphanumeric characters) in the **Key for Accessing Cue Card** field. For example, for the Vehicle Theft cue card, enter **lwnarr.narratv**.
  - If the text field has numerous application cue cards, you might also enter the cue card's number (up to 3 alphanumeric characters) or description (up to 30 characters) to narrow the search. The number (**18** in the sample) goes in the **Outline Sequence Number** field. The description (**Vehicle Theft** in the sample) goes in the **Description of Outline** field.
  - Click **Accept** (Alt+A) to begin the search.

The screen displays the **apccard** record that defines the specified application cue card.

If you did not narrow the search and the text field has multiple cue cards, the screen displays the first **apccard** record for that field. Use the **Fwd** button to page through the records until you find the desired cue card.
4. Click **Mod** and edit the **Cue Card for Text** field as desired. Click **Editor** (Ctrl+E) to make the changes in the text editor.
5. Click **Accept** (Alt+A) to save your changes to the cue card.

## Adding an application cue card

Besides modifying existing cue cards, you can create application cue cards for any text field.

Use the following procedure to modify an application cue card:

1. Know the complete name (table name plus field name) of the text field for which you want to create a cue card.

If necessary, go to that text field, and before you enter the editor, press **Help 4** (Ctrl+W 4). The help screen displays the complete field name, in parentheses. Write down the name.

2. To enter the Application Cue Card table, type **apccard** at the command line, and then press Enter.
3. Click the **Add** button.

A blank Application Cue Card screen is displayed. The cursor moves to the **Key for Accessing Cue Cards** field.

4. Enter the complete field name of the field for which you are creating a cue card. For example, if you are creating a cue card for the **Miscellaneous Comments** field in the Accident table (accident), enter **acmdesc .text**.
5. At the **Outline Sequence Number** field, enter a combination of numbers and letters (up to 3 characters) to specify the position of this cue card in the list of cue cards for this field. The software sorts entries in this field by number and then letter. For example, entries 43A, H&R (hit and run), and 35 appear in the following order: 35, 43A, H&R.



6. In the **Description of Outline** field, enter a description of up to 30 alphanumeric characters for the new application cue card (for example, Accident Comments).
7. In the **Agency** field, select an agency code if you want to designate which agency can view the application cue card. If you do not specify an agency for the application cue card, it will be available for all users on your system.
8. At the last field (**Cue Card for Text** field), click **Editor** (Ctrl+E) to enter the text editor. Enter the cue card text as desired.
9. Exit the editor, saving your changes.
10. Click **Accept** (Alt+A) to save your changes to the cue card.

## ***Changing the incident reporting system***

Use the following procedure to change your incident reporting system:

1. Determine the changes to be made to the application cue card(s).
2. Update the cue card(s) in the `apccard` table.
3. If you change only one cue card, print copies of the new cue card and instruct officers to glue the new cue card over the old card in their incident reporting handbooks.

If you change several cue cards, replace the modified pages in the master reporting handbook. Include the date of issue in the lower right corner of the front cover. Issue the new handbooks, and instruct all personnel to destroy the old handbooks.

Officers can use the new cue cards immediately without regard to the old ones because the cue cards do not need to be the same for any two incidents. You can change the cue cards as often as is necessary.

## Creating Customized Reports

The software provides hundreds of standard reports covering all aspects of the software. In addition, the software provides two ways to create customized reports for your agency's needs:

- You can copy an existing standard report to another directory and modify it to your specifications. For information on modifying existing reports, [see “Customizing existing reports” on page 290.](#)
- You can modify a default report format to create a customized report. For information on customizing default report formats, [see “Customizing default reports” on page 295.](#)

The data in your Flex system can also be used by third-party software such as Microsoft Excel or Crystal Reports for ad hoc queries and reports. For information on ad hoc reporting, see *Spillman Ad Hoc Reporting*, an electronic guide to ad hoc reporting with the software.

### Customizing existing reports

The software has two directories for reports:

- \$FORCEDIR/rpt, which holds all the base reports that are part of the standard software
- \$FORCEDIR/urpt, which provides for reports your agency customizes

To ensure that you do not accidentally corrupt any base reports or formats, *always copy report files to \$FORCEDIR/urpt before customizing them.* Even if you are only adding report format(s), you must make the change(s) in the \$FORCEDIR/urpt directory.

Changing any file in \$FORCEDIR/rpt is expressly prohibited, and Spillman Technologies takes no responsibility for supporting or preserving any changes made in this directory.

#### NOTE

Custom reports are not included under Technical Services Maintenance. Additional fees apply to assist you with custom reports.

Follow these steps to create a customized report:

1. Access the software, and find the names of the screen file and the format files for the report that you are changing. Write down the names.

For example, to change an Incident Summary Report for Fire incidents, access the Fire Incident Reports Menu and highlight

Incident Summary Report. The name of the report screen file (`rpfrisr`) appears at the command line. Press Enter to select Incident Summary Report. The report screen appears, and you can perform a Lookup at the `Format :` option to view a list of existing formats.

2. Exit the software. Using your operating system's copy command, copy the report screen file and the report format files from the `$FORCEDIR/rpt` directory into the `$FORCEDIR/urpt` directory.
3. Change the report screen file in `$FORCEDIR/urpt` as desired. (See [“Ways to customize reports” on page 292..](#)) Save the edited file, using the `*.q` naming convention.
4. Change the report format files, and add more report formats as desired.

To add a format, edit an existing format and save the changes with a new filename that reflects the new format number. For example, if seven formats are available for the Incident Summary Report for Fire incidents, you can add an eighth report, naming it `rpfrisr.r8`.

Use the `*.r*` naming convention for report format files. For more information, see [“Naming a report” on page 293](#).

5. Check the Spillman script file to be sure that the `FORCEDIR` environment variable lists the `$FORCEDIR/urpt` directory before the `$FORCEDIR/rpt` directory. For example, the Spillman script might contain the line:

```
FORCEDIR=/u/nforce/urpt:/u/nforce/rpt
```

The Flex report writer interface program (`report`) searches both report directories to locate report screens and scripts. The `FORCEDIR` variable must list `$FORCEDIR/urpt` before `$FORCEDIR/rpt` so that the `report` program finds the customized reports first and uses them instead of the base reports.

6. Make sure that `$FORCEDIR/urpt` does not contain any duplicate format names.

The `wherefile` subroutine uses a wild card (`screen.r*`) to locate the first format file. It then uses the base directory of the first format file to locate (`expfwd`) the remaining format files.

For `wherefile` to work properly, `$FORCEDIR/urpt` can contain no duplicate format names.

7. In Flex, use the Program/Menu Definition table (`sypgm`) to place the customized report on the main menu for site-specific programs (`custpgm`) and the customized reports on the main menu for all site-specific reports (`custrpt`).

The `custpgm` and `custrpt` menus (and any sub-menus created under them) are kept intact during software upgrades. Placing your customized programs and reports on these menus prevents them from being removed from the menus in an upgrade.

8. Because the `custrpt` menu contains all site-specific reports, regardless to which module they apply, Spillman Technologies suggests that you might make the `custrpt` menu an item on each module's main report menu. This reminds users to check `custrpt` for the site-specific reports related to that module.

For related tasks to complete following a software upgrade, see [“Updating customized reports/programs in an upgrade” on page 292](#).

## Ways to customize reports

You can customize a report in the following ways:

- To use hard-coded queries. For example, you can set the report to always choose one particular code, such as CCSO (Cache County Sheriff's Office).
- To use hard-coded displays. For example, you can set the report to always print Pima County Civil Department as the title.
- To use a field in a different way than was originally intended (as long as you use the field consistently). For example, you can use the Fleet module's **Vehicle Gas Type** field to record the location of the gas station, rather than the type of gas, used for fueling.
- To be run through `cron`.

## Updating customized reports/programs in an upgrade

Upgrading to a new version of the software overwrites the base reports in `$FORCEDIR/rpt` but not any customized (site-specific) reports you saved in `$FORCEDIR/urpt`.

Upgrading does, however, remove from the menus any customized reports not placed on the `custrpt` menu and any customized programs not placed on the `custpgm` menu. Therefore, place your customized programs and reports on these menus, using `sypgm`.

You are responsible for upgrading and testing report screens and report formats after each major upgrade. If notified before the upgrade, Spillman Technical Services can incorporate your customized reports into the upgrade for an additional fee.

When restoring the `custrpt` menu and the `custpgm` menu, the upgrade places them on the Main Menu, as the last two items. You can then move the custom menus to other menus, as desired. Spillman Technologies suggests making the `custrpt` menu an item on each module's main report menu. This reminds users to check `custrpt` for the site-specific reports related to the module they are using. (For instructions, see [“Changing or Adding a Menu” on page 281.](#))

## Naming a report

When creating a report screen and formats, follow these conventions to name the report:

- Use `rp` (for “report”) as the first two letters of the name.
- Use the acronym of the report's module (for example, `nm` for Names) as the next two letters. Get the acronym from the table below.
- For the last four letters, use an acronym that describes the report's content. (For example, the report that provides a summary of persons born in a certain city is `rpnmbirc`, where `birc` stands for “Birth City.”)

Any base report names that do not conform to this standard will be updated as time permits.

| Acronym of Module | Description of Module   |
|-------------------|-------------------------|
| <code>ac</code>   | Traffic Accident        |
| <code>ap</code>   | Application             |
| <code>bi</code>   | Premises Information    |
| <code>ca</code>   | Cash Account            |
| <code>cd</code>   | CAD                     |
| <code>cg</code>   | Civil Garnishment       |
| <code>cm</code>   | Commissary              |
| <code>cp</code>   | Civil Process           |
| <code>ct</code>   | Traffic Citation        |
| <code>ec</code>   | External Communications |
| <code>em</code>   | EMS Incident            |

| Acronym of Module | Description of Module           |
|-------------------|---------------------------------|
| eq                | Equipment Maintenance           |
| ev                | Evidence Management             |
| fi                | Field Interview                 |
| fr                | FIRE Incident                   |
| fv                | Fleet Vehicle                   |
| gb                | Geobase                         |
| gl                | General Ledger                  |
| hm                | Hazardous Materials             |
| in                | Miscellaneous Involvement       |
| it                | Intelligence                    |
| iv                | Inventory Management            |
| jc                | Jail Code Tables                |
| jl                | Old Jail Visitors               |
| jm                | Jail Management                 |
| jv                | New Jail Visitors               |
| le                | LE Officers Killed or Assaulted |
| lp                | Licenses and Permits            |
| lw                | Law Incident                    |
| nm                | Names                           |
| nt                | Network Request                 |
| pe                | Personnel                       |
| pn                | Pawned Property                 |
| pr                | Property                        |
| pv                | Policy Violation                |
| rl                | Radio Log                       |
| rp                | Response Plans                  |

| Acronym of Module | Description of Module |
|-------------------|-----------------------|
| ru                | Recommended Units     |
| sy                | System Maintenance    |
| tb                | Code Tables           |
| tw                | Traffic Warning       |
| vh                | Vehicle               |
| vi                | Vehicle Impound       |
| wa                | Wants                 |
| wr                | Wrecker               |

## Customizing default reports

The software provides default reports for all screens that have a **Prt** button. You use these default reports to print the results of searches you perform using the software search features. Each report has a default content format and a unique output format that cannot be changed. For information on using the default reports, see the Online Help.

The content format for default reports `default.r0`, `default.r1` and `default.r3` cannot be customized. Customized content formats cannot be output through these default reports.

The other default reports (`default.r2`, `default.r4`, `default.r5` and `default.r6`) are referred to as customizable default reports. They share a common default content format, which you can replace with one or more customized content formats.

### Customizable default report content format

Although screens can display data from many tables, every screen with a **Prt** button has a primary table. For every record in the search set you select, a customizable default report default content format contains all of the fields in the primary table, in the sequence they are found in the schema. Certain fields (such as `modwhen`, `addwhen`, `modby`, and `addby`) are omitted, as are fields not found in the primary table. For all output formats except `default.r6`, the fields are presented in one line per record in the search set. Except for the List Format (`default.r2`) which is limited to 80 characters, lines can be of arbitrary length. Fields are presented in their full width as specified in the schema. Field headings vary by the output format:

- `default.r2` headings are taken from the field descriptions on the screen.
- `default.r4` and `default.r5` headings are of the form `tablename.fieldname`.
- `default.r6` headings are XML tags containing the field name in uppercase letters.

If you customize this default content format, you effectively create a new report. However, a customized report cannot be renamed and still appears in the print dialog as `default.rx`, where `x` is 2, 4, 5, or 6. Any customization you apply to the content format applies to all customizable default reports. You then choose an output format for the customized content format by choosing one of the following from the print dialog:

- `default.r2`
- `default.r4`
- `default.r5`
- `default.r6`

If you create only one customized default report content format for a screen, that content format replaces the default schema-ordered content format. If you create multiple customized default report content formats for a screen, the new content formats replace the schema-ordered default content formats and the software prompts you to choose from the available customized content formats during the output process.

### Understanding default reports

Several default reports exist for screens that have a **Prt** button. The following table describes them.

| Default report                                               | Output format description                                                                                                                                                                                                                                                               | Customizable content format |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Current Screens and Associations ( <code>default.r0</code> ) | This report prints the record currently displayed and any records linked to it. This includes all information displayed, regardless of the table in which it is stored. To print multiple records, use a different report.                                                              | No                          |
| Field and Data Format ( <code>default.r1</code> )            | This report prints the record(s) as a two-column format with the field names in one column and the data in the other column. All information displayed on the parent screen is printed, but not necessarily in the same order. You can also print linked records, such as involvements. | No                          |



| Default report                                          | Output format description                                                                                                                                                                                                                                                                                         | Customizable content format |
|---------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| List Format (default.r2)                                | Use this output format to list the search results, one record per line. The List Format is limited to 80 characters per line.                                                                                                                                                                                     | Yes                         |
| Field and Data Format (Double Spaced Text) (default.r3) | This report is the same as the Field and Data Format (default.r1), except that it is double-spaced.                                                                                                                                                                                                               | No                          |
| Delimited ASCII Format (default.r4 and default.r5)      | Use output format default.r4 to create a pipe-delimited ASCII output of the search results. Use output format default.r5 to create a comma-delimited ASCII output of the search results. You can then export the ASCII output to other software, such as Microsoft Excel, for further formatting or calculations. | Yes                         |
| XML Format (default.r6)                                 | Use this output format to create XML output of the search results. You can then export the XML output to other applications.                                                                                                                                                                                      | Yes                         |

For each screen with a **Prt** button, you can create multiple customized content formats, and output them through any of the customizable default reports. For example, for the Names screen, you might create a customized content format that shows names and alert codes, and then create another customized content format that shows names and addresses. You can output either of these customized content formats through any of the customizable default reports.

## Customizing a content format with syformat

To create a customized content format:

1. Enter **syformat** at the command line.

The Default Report Formats screen appears.

2. Click **Add**.

The software assigns an ID number to the content format and displays it in the **Format Number** field.

3. In the **Table Name** field, do one of the following:

- Enter the name of the primary table for the screen.

**TIP**

If you do not know the primary table for a particular screen, use the following process to find it:

1. Open the screen and select any record.
2. Click the **Prt** button and select `default.r4` from the list of available default reports.
3. Print or preview the default report. The primary table is the one named in the field headings.

- Click the Lookup button (Ctrl+E), select a table name from the lookup list, and then click **Accept**.

**NOTE**

The software uses the value in the **Table Name** field to assign a default report title in the **Report Title** field. You can change the report title.

4. In the **Format Description** field, enter a description of the content format.

Type a name (for example, Alerts) to differentiate this content format from other content formats for the same table. If you create other content formats for this table, you select this name to use this content format.

5. In the **Report Title** field, make any necessary changes to the generated title, and then press Enter.

#### NOTE

This report title is used as the title of the default.r2 and default.r6 default report output formats.

The Default Report Formats screen now appears similar to the following.

The screenshot shows the 'Default Report Formats' window in the 'syfmain' application. The window has a menu bar (File, Edit, Search, Tools, Help) and a toolbar with 'Accept', 'Cancel', and 'Previous' buttons. The main area is titled 'Add a new record'. It contains the following fields:

- Format Number: 16
- Table Name: prmain
- Format Description: Firearms Report
- Report Title: Property Table Firearms

Below these fields are two sections:

- Column Information:** A table with columns: Variable Name, Heading Name, Len, Reference Field, and Dtt#. The first row has a dropdown menu for Variable Name, 'Detail' for Heading Name, and zeros for Len, Reference Field, and Dtt#. There are four more rows with zeros. A 'Total' row is at the bottom.
- Sort Information:** Fields for Variable Name, Ascending, Reference Field, and Dtt#. The Variable Name field is empty, and the other fields have zeros.

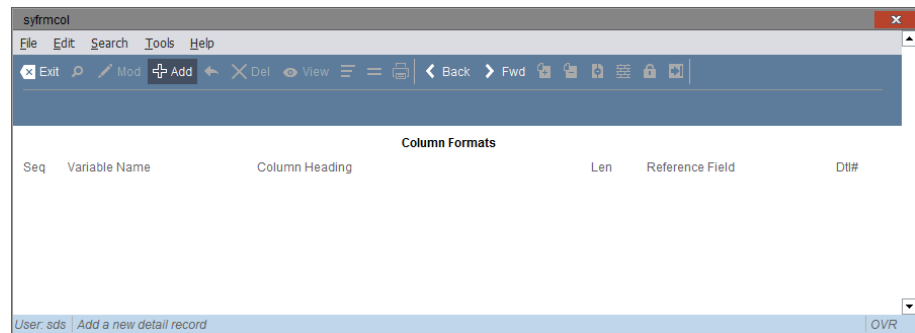
At the bottom of the window, there is a status bar that says 'User: sds | Tap NEXT to enter detail window' and 'OVR'.

6. In the **Column Information** block, click **Detail** (Ctrl+N).

#### NOTE

After you type any information into either the **Column Information** or the **Sort Information** block, you cannot change the value in the **Table Name** field.

The software displays the following screen.



7. Click **Add**.

The software assigns a sequence number to the detail record and displays it in the **Seq** field.

8. In the **Variable Name** field, do one of the following:

- Type the complete name (*tablename.fieldname*) of a variable you want to appear in the report. For example, to include the **Last** field from the Names table, enter **nmmain.last**.
- Click the Lookup button (Ctrl+E) and select a variable from the lookup list. Use the Help (Ctrl+W) function to verify a field name.
- Type the table name and press Enter, then select a variable from the list.

**NOTE**

A given report can include only those fields that are related in some way to the table you specify in the default report format. Beyond that, you are not limited in the fields you can include. For example, a **vhmain** report can include the names of vehicle owners even though the names are stored in the table **nmmain**. The software does not allow you to add ineligible fields to a default report format.

9. In the **Column Heading** field, type the heading you want to appear over the variable.

The heading should be no longer than the field; otherwise, the heading will be truncated to the length of the field when output through **default.r2**. There is no heading length limit when the report is output through **default.r4**, **default.r5**, or **default.r6**.

10. In the **Len** field, the software automatically enters the number of characters the variable will occupy on the report. You can change the number.

Remember that the total report length (including space between fields) cannot exceed 80 characters when output through `default.r2`. The software displays the total number of characters for the report in the **Total** field.

#### NOTE

Shortening the length of a field can sometimes result in no data being displayed, even though the field contains data. For more information on displaying values in fields, see [“Understanding how fields are printed” on page 303](#).

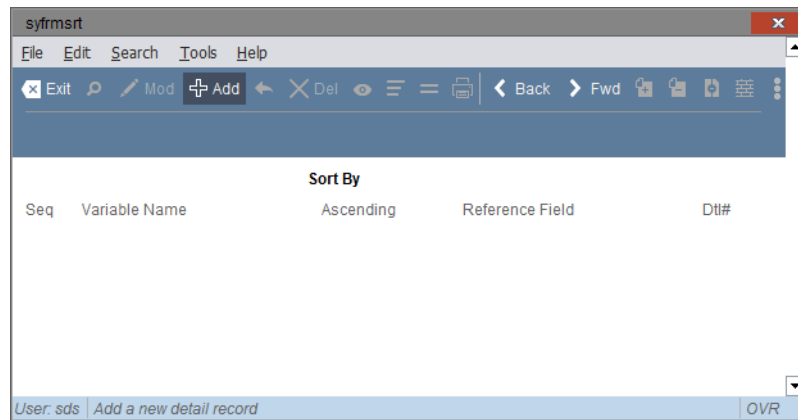
11. If the variable is in the table specified in the **Table Name** field, you cannot enter a value in the **Reference Field**.

If the variable is *not* in the table specified in the **Table Name** field, the software usually fills in the correct value in the **Reference Field**. Sometimes, though, you must indicate the field by selecting it from a lookup list. In the sample, the field `nmmain.last` references the field `prmain.ownerid`.

If the software fills in the **Reference** field, you cannot change the value.

12. In the **Dtl#** field, do one of the following:
  - If the field is not from a detail record, leave the default value 1.
  - If the field is from a detail record, type the number of the specific detail record you want the field value to come from. For example, to specify the field values from each of the first three detail records, add three identical items, each with a different `DTL#` (1, 2, or 3). To specify the field value from the last detail record, use the number 9999.
13. When you have added all the variables for your report, click **Exit**.
14. In the **Sort Information** block, click **Detail** (Ctrl+N).

The software displays the following screen.



15. Click **Add**.

The software assigns a sequence number to the detail record and displays it in the **Seq** field

16. In the **Variable Name** field, do one of the following:

- Type the name of the variable you want to use as the first sort key.
- Click the Lookup button (Ctrl+E) and select the variable you want to use as the first sort key.
- Type the table name and press Enter, then select a variable from the list.

17. In the **Ascending** field, enter **Y** to sort in ascending order or **N** to sort in descending order.

18. If the variable is in the table specified in the **Table Name** field, you cannot enter a value in the **Reference Field**.

If the variable is *not* in the table specified in the **Table Name** field, the software usually fills in the correct value in the **Reference Field**. Sometimes, though, you must indicate the field by selecting it from a lookup list. In the sample, the field `nmmain.last` references the field `prmain.ownerid`.

If the software fills in the **Reference** field, you cannot change the value.

19. In the **Dtl#** field, do one of the following:

- If the field is not from a detail record, leave the default value 1.
- If the field is from a detail record, type the number of the individual detail record in which the field you want to use as a sort

key is contained. For example, to sort on the value of the field in the third detail record, enter **3**. To sort on the value of the field in the last detail record, enter **9999**.

20. When you have entered all sort keys, click **Exit**.

21. Click **Accept** (Alt+A).

The completed Default Report Formats screen looks similar to the following.

**Column Information**

| Variable Name  | Heading Name | Len | Reference Field | Dtl# |
|----------------|--------------|-----|-----------------|------|
| prmain.number  | Item#        | 9   |                 | 1    |
| prmain.item    | Type         | 8   |                 | 1    |
| prmain.ownerid | Owner        | 9   |                 | 1    |
| nmmain.last    | Last name    | 8   | prmain.ownerid  | 1    |
| nmmain.first   | First name   | 8   | prmain.ownerid  | 1    |
| Total          |              | 42  |                 |      |

**Sort Information**

| Variable Name | Ascending | Reference Field | Dtl# |
|---------------|-----------|-----------------|------|
| prmain.brand  | Y         |                 | 1    |
| prmain.model  | Y         |                 | 1    |
| nmmain.last   | Y         | prmain.ownerid  | 1    |

User: sds | Modify the current record | OVR

### Understanding how fields are printed

Most fields print just as you see them on the screen, with the following exceptions:

- For text fields, all hard returns are replaced by spaces. However, in the XML format, hard returns are left in variable-length text fields such as narratives and comments.
- For decimal numbers (other than money), reports display the number of decimal places listed in the schema.
- For time/date fields:
  - If you modify the character length to 8 characters, the report prints the time only.
  - If you modify the character length to 10 characters, the report prints the date only.

– If the field is empty the report prints \*\*:\*\*:\*\* \*\*/\*\*/\*\*\*\*.

- If you decrease the character length, the report truncates the information from the right. If the field is right-justified, this can result in no data being displayed.

### Understanding the XML default report output format

The XML default report output format complies with the World Wide Web Consortium (W3C) specification for XML.

Where necessary, tag names are modified to meet the specification:

- Leading and trailing spaces are removed.
- Illegal characters are replaced with an underscore ( \_ ).
- If the first character is not a valid first character, the software inserts an underscore in front of it.

Data is also modified if necessary:

- Ampersand characters (&) are replaced by the character entity “&amp;”.
- Left angle brackets (<) are replaced by the character entity “&lt;”.

The following table describes how tag names are created.

| Tag                       |        | Description                                                                                   |
|---------------------------|--------|-----------------------------------------------------------------------------------------------|
| No syformat record exists | Root   | Name of the primary table in uppercase letters with _LIST appended. For example, NMMAIN_LIST. |
|                           | Record | Name of the primary table in uppercase letters. For example, NMMAIN.                          |
|                           | Field  | Name of the field in uppercase letters. For example, LAST.                                    |
| A syformat record exists  | Root   | Value in the <b>Report Title</b> field (syfrmain.title).                                      |
|                           | Record | Value in the <b>Format Description</b> field (syfrmain.desc).                                 |
|                           | Field  | Value in the <b>Heading Name</b> field of the Column Information block (syfrmcol.colhdg).     |

### Printing the customized default report content format

To print or view a customized content format:

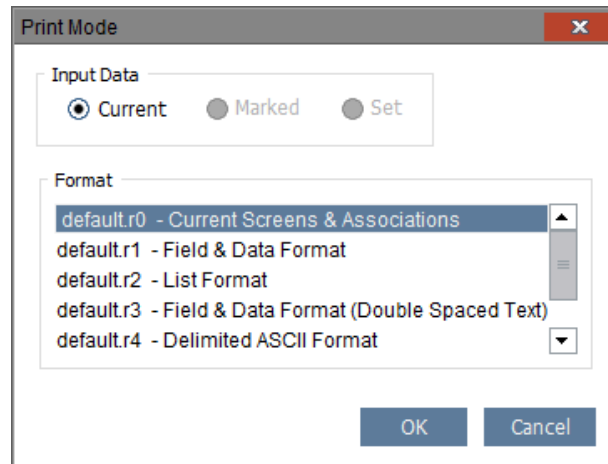
1. Open the table on which the content format is based.



For example, to print the sample Firearms Report open the Property screen (prmain).

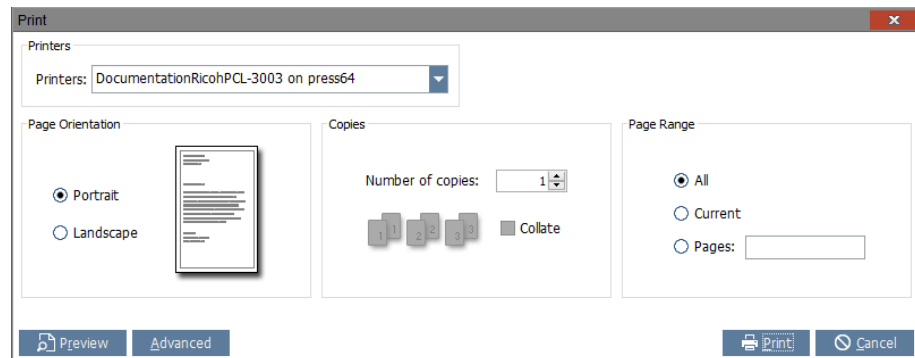
2. Search for the information you want in your report.
3. Click **Prt**.

The software displays the **Print Mode** dialog box.



4. In the **Input Data** area, select the record(s) you want to print by doing one of the following:
  - Click **Current** to print the record currently displayed on the screen.
  - Click **Marked** to print only those records that are marked in the list window.
  - Click **Set** to print all the records in the search set
5. In the **Format** area, select one of the following output formats:
  - For a List Format output format, select `default.r2`.
  - For a Delimited ASCII Format output format, select `default.r4` for a pipe (|) delimited format or `default.r5` for a comma (,) delimited format.
  - For an XML output format, select `default.r6`.
6. Click **OK** or press Enter.

The **Print** dialog box opens.



7. Set your printing options. See the Online Help for more information.

8. To print the report, click **Print** (Alt+P).

#### NOTE

To preview the report before you print it, click the **Preview** button. For more information, see the Online Help.

9. One of the following occurs:

- If there is more than one customized content format for the table, then the software displays a prompt that lists the formats.

Select the customized content format you want and then click **Accept**. The software then processes the report according to your specifications.

- If there is only one customized content format for the table, then the software processes the report according to your specifications.

#### Security of default reports

To prevent users from accessing a particular default report, simply hide the report format. To do this, move the `syformat` record that defines that format into a non-agency partition. General instructions are provided in the *Security Setup and Maintenance Manual*. Note the following tips:

- If you want someone other than yourself to move the `syformat` records into the partition, create a `sypriv` record enabling that user to move records into the partition. In this `sypriv` record, enter the security identifier in the format `table-name:"partition-name"`. The `syformat` program uses the `syfrmain` table. Therefore, if the name of the partition will be `test`, you must set the security identifier to `syfrmain:"test"`.

- In `syformat`, you (or the person to whom you gave permission) must use the **Partn** button to move the displayed record into the partition. Enter the partition name, such as `test`, when prompted.
- You have many options when assigning privileges to the new partition. For example, you can add `sypriv` records that give specific users/groups various privileges to the new partition. You can also create one `sypriv` record that gives the World a specific set of privileges to the partition, and then create additional `sypriv` records that deny specific users/groups various privileges

## Changing a Table Record Numbers

Several tables in the software number their records. The *format* of the record numbers is defined in the Next Record Numbers table (`synxtids`). When the software is installed, this table contains one record for each table that numbers its records. For example, it contains one record for the Names table (`nmmain`) and one record for the Law Incident table. This original `synxtids` record assigns the table the sequential number format shown in the following table:

| Format                | Examples                                                               |
|-----------------------|------------------------------------------------------------------------|
| Sequential number     | 000000001, 000000002, 000000003 ...                                    |
| Year+Number           | 98-000001, 98-000002, 98-000003 ...<br>99-000001, 99-000002, 99-000003 |
| Year+Month+Number     | 9811-0001, 9811-0002, 9811-0003 ...<br>9812-0001, 9812-0002, 9912-0003 |
| Year+Month+Day+Number | 980730-01, 980730-02, 9890730-03...<br>980731-01, 980731-02, 980731-03 |

During setup, you can change the record number format to one of the other formats shown above.

If multiple agencies use the same table, you can set up a different number format for each agency. For example, you can use a format such as 98-P00001 for a police department and a format such as 98-S00001 for a sheriff's office. Again, do this only during setup.

The software automatically increments record numbers as users add records. Therefore, after setup, you need to access the Next Record Numbers table *only* if you must skip a record number. Seldom do you need to do this. However, if your agency requires that numbers in the Civil Process table (`process`) match numbers from a court, and the court skips a number, then you must also skip that number.

If you *don't* need to match the numbers of another agency, let the software assign the record numbers. Even if someone deletes a record, don't force the software to use that record number again.

### The Next Record Numbers table (`synxtids`)

Each record in the `synxtids` table contains the following information:

- The program name of the table (for example, `lwmain`)
- The last record number used in that table
- The format for the record numbers in that table (for example, whether the year will precede the numbers)

The Next Record Numbers Table screen appears as below.

## Fields

---

Table Record IDs Are For

---

The table name for which you are creating a record. Perform a Lookup for a list of all the tables in the software.

---

Agency Record IDs Are For

---

The code of the agency for which you are creating a record.

The **Agency Record IDs Are For** field lets you indicate whether the specified record number format applies to only one agency that uses that table.

---

Last Record ID Used

---

The number of the last record entered for the selected table.

Each time a user adds a record in a table, the software looks at that table's synxtids record to determine the next record number to assign.

---

ID Format code

---

The numbering format you want used for this record. Perform a Lookup to view the following options:

- 0 - No prefix
- 2 - 2-digit year prefix
- 4 - 4-digit year/month prefix
- 6 - 6-digit year/month/day prefix

## Changing the record number format for a table

Use the following procedure to change the record number format for a particular table. Remember, you can do this only during setup.

1. Access the Next Record Numbers table from the System Maintenance menu or by entering **synxtids** at a command line.

A blank **synxtids** screen appears, and the **Srch** button is highlighted:

2. Press Enter to select the **Srch** button.

The cursor appears in the **Table Record IDs Are For** field.

3. Enter the table name (for example, **lwmain** for the Law Incidents table) of the table whose record number format you want to change, and click **Accept** (Alt+A).

The software searches for the **synxtids** record for the table specified and displays it.

### NOTE

The **Table Record IDs Are For** field accepts an alphanumeric value of up to 8 characters. You must enter the table name (for example, **lwmain**), not the program name (**law**), when searching. If you don't know the table name, see the *Security Setup and Maintenance Manual* for instructions on finding table names.

4. If the record number format applies to all, or all but a few agencies, leave the **Agency Record IDs Are For** field blank. Later, you can create a **synxtid** record for any agency that is an exception.

If the record number format applies to one agency, enter that agency's code. The value you enter must be a valid code of up to 4 characters from the **apagency** code table.

5. The **Last Record Number Used** field displays the last record number that the software assigned in the specified table (**lwmain**, in the example above). For example, if the **Last Record Number Used** field for **lwmain** displays 1, the next Law record is assigned the next number available after 1 (usually 2), unless you change the number.

During setup, change the number in this field if one of the following conditions exists:

- You have two agencies using separate numbering sequences for the same table. In this case, you enter a character identifier in the **Next Available Record ID** field to avoid duplication of record numbers. For example, you use 92-P00001 for the police department and 92-S00001 for the sheriff.

- You want to use a two-digit year prefix in incident numbers. In this case, modify the **Last Record ID Used** field to reflect the current year.
- You use CAD. To allow users to enter incidents either through CAD or directly at the incident screen, you must set up CAD call numbers and the three types of incident numbers (law, fire and EMS) so that they never conflict. Spillman Technologies recommends using the following pattern record IDs: 98-L00001 for Law Incidents, 98-F00001 for Fire Incidents, 98-E00001 for EMS Incidents, and 98-C00001 for CAD Calls (cdcall).

After setup, change the value in this field only if you need to skip a record number. Before modifying the number in this field, see [“Skipping a record number in a table” on page 312](#). The field accepts a 9-character alphanumeric value.

6. At the **ID Format Code** field, enter one of the following numbers to define the record number format:

- |    |                                                        |
|----|--------------------------------------------------------|
| -1 | if the table is gbaddrx                                |
| 0  | to not precede ID by year                              |
| 2  | to precede ID by 2-digit year                          |
| 4  | to precede ID by year and month (yyymm)                |
| 5  | if the table is sycad (to precede ID by month and day) |
| 6  | to precede ID by year, month, and day (yyymmdd)        |

The **ID Format Code** field accepts a numeric value of up to 3 characters.

If you enter a code of 2, 4, 5 or 6, also include the day/month/year, as appropriate, in the **Last Record ID Used** field.

7. Click **Accept** (Alt+A). The table’s record number is changed.

#### Automatic updating of year prefix

If a table’s record numbers begin with the year (as in 98-001), do *not* change the Last Record ID Used value at the end of a year to reflect the coming year. The software automatically changes the year in synxtids the first time someone accesses the affected table in the new year.

## ***Skipping a record number in a table***

To force the software to skip a record number, follow this procedure:

1. Access the Next Record Numbers table from the System Maintenance menu or by entering **synxtids** at the command line.

A blank **synxtids** screen appears, and the **Srch** button is highlighted.

2. Press Enter to select the **Srch** button.

The cursor appears in the **Table Record IDs Are For** field.

3. Enter the table name (for example, **lwmain**) of the table in which you want to skip a record number. Click **Accept** (Alt+A).

The software searches for the **synxtids** record for that table and displays it.

4. Click **Mod. Then**, click the **Last Record ID Used** field.

5. Change the value in this field to the number you want to skip.

The next time a record is added to the specified table, the software assigns the next available number following the number you skipped. For example, if you want to skip 65, the software next assigns 66 if it is available. If 66 is not available, the software assigns 67, and so on.



## Rebuilding Tables

If a power outage occurs or you turn off the computer without shutting down the operating system, your computer might shut down abnormally. Abnormal shutdown can damage parts of the UNIX file system or leave some database operations incomplete. As a result, you might need to perform one of the following tasks:

- Reload files from your backup (and update them with the transaction log, if you are using that log).
- Fix the problem by rebuilding the damaged tables. For example, if the .idx file (the index or key file) is deleted, you can recreate it by rebuilding the table to which it belongs. Also, if a record is added but the system is shut down before the keys for that record were added, you can add those keys by rebuilding the table.

Only rarely do you have to rebuild a table. If you do experience problems and Spillman Technical Services personnel decide that some of your tables must be rebuilt, they will provide further instructions.

Running the programs for rebuilding tables requires root privileges.

### CAUTION

Always make an up-to-date backup before rebuilding a table! Rebuilding tables is extremely sensitive work that has the potential to destroy data. You might need to restore data if anything goes wrong during rebuilding.

## Using idxmaid to rebuild tables and indexes

The simplest way to correct tables that have corrupted indexes is to run the `idxmaid` utility. This utility verifies that a matching data record exists for each index and that a matching key exists in each index.

`Idxmaid` can fix some, but not all, corrupt table errors. If you receive Error 160, running `idxmaid` usually fixes the problem.

The `idxmaid` utility runs as a background process, allowing users to continue working on the system while `idxmaid` is running. Output from `idxmaid` goes to `stdout` and `stderr`. The `stdout`, or standard out output, shows everything that `idxmaid` has done. The `stderr`, or standard error output, provides a summary of what `idxmaid` has done.

### Running idxmaid on small files

Use the following procedure to run `idxmaid` on a small file:

1. Log in to the software as root. Logging in to the software ensures that your paths are set to the files and executables.

2. At the Main Menu's command line, enter **sh** to shell out to UNIX.
3. Enter the **idxmaid** command in the following format:

```
idxmaid tablename+
```

For example, to run **idxmaid** on the **sycad** file, enter:

```
idxmaid sycad+
```

#### NOTE

If you get an error stating that the system cannot find **idxmaid**, add **\$INDBDIR/util** to your path.

### Running idxmaid on large files

Use the following procedure to run **idxmaid** on a large file:

1. Log in to the software as root. Logging in to ensures that your paths are set to the files and executables.
2. At the Main Menu's command line, enter **sh** to shell out to UNIX.
3. Create a shell script file named **maidit** to run in the background, using the following command syntaxes as examples:

```
vi maidit
```

```
idxmaid tablename+ > logfile 2> errfile
```

For example:

```
vi maidit
```

```
idxmaid lwmain+ >lwmain.log 2>lwmain.err
```

4. Enter the following command to change permissions on **maidit** so that it will execute:

```
chmod +x maidit
```

5. Run **maidit** in the background with **nohup** by entering the following command:

```
nohup maidit&
```

In step 3 in the preceding example, the files **lwmain.log** and **lwmain.err** should be created in your home directory. You can **view**, **cat**, or **pg** these files to see what **idxmaid** did while it was running. The majority of the output should be in **lwmain.log**. The file **lwmain.err** will show how many errors were found.

## Repairing the Active Calls and Unit Status Tables

The Active Calls (`sycad`) and Unit Status (`syunit`) CAD tables are used more than any of the other tables. These tables usually do not contain an exceptionally large number of records, but the records they do contain are updated constantly (sometimes dozens of times within a few seconds). All this activity makes these tables much more prone to damage or corruption. If the damage is severe enough, it can affect the operation of CAD. Agencies have experienced problems ranging from error messages to complete CAD lockup.

This section discusses how to resolve some relatively minor problems involving the `sycad` table or the `syunit` table. Because these tables usually contain relatively small numbers of records, they are fairly easy to repair and maintain.

### Common error messages

The table below lists common error messages involving the `sycad` and `syunit` tables. The instructions under “Repairing corrupted indexes” can help you repair these errors without assistance from Spillman Technical Services. Contact the Spillman Technical Services for assistance with errors not included in the table below.

| Error Message # | Possible Problem                                                            |
|-----------------|-----------------------------------------------------------------------------|
| 4               | An index key has not been created or has been corrupted since its creation. |
| 101             | The index for the record does not exist or has become corrupted.            |
| 160             | The index for the data file is corrupt.                                     |

### Repairing corrupted indexes

You will note from the table above that each of the common errors associated with `sycad` and `syunit` involves an incomplete or missing index file (the file that organizes the raw data contained in a table’s data file). The `idxmaid` utility in the software can help you repair these types of problems.

Generally, you should first attempt to solve an index error by running `idxmaid` on the table containing the error. Because `idxmaid` operates in the background of the system, you can run it while users are still logged on.

### Running idxmaid utility

The `idxmaid` utility checks and repairs a table's index file (for example, `sycad.idx`). Run `idxmaid` on `sycad` or `syunit` in response to one of the error messages contained in the table above.

To run `idxmaid`, follow these steps:

1. Log in to the software as root. Logging in to will set the correct file and executable paths.
2. Shell out of the software at the main menu.
3. Run `idxmaid` by entering a command in the following format:

```
idxmaid table name+
```

For example, enter:

```
idxmaid sycad syunit+
```

As long as you type the + sign, you do not need to type any file extension (for example, `.idx`).

If `idxmaid` reports errors that it could not correct (indicated by a log message that begins with `err=`), run `idxmaid` a second time makes it clearer whether any problems remain. For further information on running `idxmaid`, see [“Using idxmaid to rebuild tables and indexes” on page 313](#).

## Removing invalid sycad records

The accumulation of extra records in `sycad` usually indicates that dispatcher responsibilities in the Dispatch Positions table (`cdpos`) are setup improperly. Use either of the following methods to correct the problem:

- Add a blank zone. (Enter the **Zones Responsible For** field's detail window and add a detail record with the **Zone** field blank.)
- Make the dispatcher responsible for all zones. To do this create a new dispatch position in `cdpos` that includes no detail records in the **Zones Responsible For** field.

## Locating invalid sycad records

The CAD Active Call Table Back Door program (`sycad`) allows you to periodically check for and delete extra `sycad` records. Access the program (as a Super User) by entering `sycad` at the command line.

Use either or both the following methods to check the back door program for invalid `sycad` records:

- Search the table for call records that have a **When Status Declared** field time that is older than the past few days.
- Search the table for call records in which the **Zone** field is “not equal to” \* (asterisk). This search method finds all call records that include an invalid or blank zone.

Often, the best way to retrieve invalid records is to combine the above search methods. Delete any record that is not an active call (unless the call has a hold placed on it).

## Removing invalid syunit records

Often, extra records in `syunit` accumulate because users respond **yes** to the following prompt:

Warning: unit XXX is unknown; dispatch anyway?.

Inform your users that this message usually indicates a typographical error or that the arguments to the `rl` (Radio Log) command were specified in the wrong order. Usually, users should respond **no** to the message, cancel the `rl` command, press Recall, and make the appropriate corrections to the `rl` command.

A user should respond **yes** to the message only when intentionally dispatching a unit that is not normally that user’s responsibility (for example, a unit from an agency not using the software).

### Locating extra syunit records

The CAD Current Unit Status Table Back Door program (`syunit`) allows you to periodically check for and delete extra `syunit` table records. Access the CAD Current Unit Status Table Back Door program (as a Super User) by entering **syunit** at the command line.

To find the records in `syunit` that contain units that are not included in the Units table (`cdunit`):

- Search the back door for records in which the **Description Field** is “not equal to” \* (asterisk).

Because the value in the **Description Field** in the `syunit` table displays from the `cdunit` table, anything that the search retrieves is either an invalid record or a record containing a new unit that you should add to the `cdunit` table.

After you add any new units to the `cdunit` table, delete the remaining records.

## Changing Priority or Abbreviations of Involvement Types

Involvements appear on the screen in order of importance. The Involvement Types table (`syinvtyp`) defines the priority of and abbreviation for each involvement type. The software is preloaded with the abbreviation and priority for each involvement type as listed below.

### CAUTION

Never make changes to the `syinvtyp` table after your agency goes "Live."

To make changes to the abbreviations or priorities, access the `syinvtyp` table and modify it as desired. Involvements with the highest numbered priority appear at the top of the Involvements screen, below any active warrants or alert involvements. For example, priority 1500 involvements will appear at the top of the screen. You can modify the abbreviation by entering the desired two-character abbreviation in the **How Value is Entered/Displayed** field.

| Table                            | Abbreviation | Priority |
|----------------------------------|--------------|----------|
| (acmain) Accident                | AC           | 700      |
| (bimain) Premises                | BI           | 450      |
| (cdcall) CAD                     | CA           | 300      |
| (cdtrstop) Traffic Stop          | TS           | 350      |
| (cpmain) Civil                   | CP           | 1300     |
| (ctmain) Citation                | CT           | 800      |
| (dsmain) Dissemination           | DS           | 50       |
| (emmain) EMS Incident            | EM           | 1100     |
| (evmain) Evidence                | EV           | 180      |
| (fimain) Field Interviews        | FI           | 100      |
| (frfimain) Fire Field Interviews | FF           | 150      |
| (frmain) Fire Incident           | FR           | 1000     |
| (inmisc) Misc Invl               | MI           | 400      |
| (jmmain) Booking                 | AR           | 1400     |
| (lpmain) Licenses and Permits    | LP           | 160      |
| (lwmain) Law Incident            | LW           | 1200     |

| Table                      | Abbreviation | Priority |
|----------------------------|--------------|----------|
| (nmassoc) Name Association | NA           | 950      |
| (nmmain) Names             | NM           | 900      |
| (pcmain) Case File         | PC           | 88       |
| (pnactiv) Pawn Activity    | PA           | 39       |
| (pnmain) Pawned Property   | PN           | 38       |
| (prmain) Property          | PR           | 200      |
| (twmain) Warning           | TW           | 500      |
| (vhmain) Vehicle           | VH           | 600      |
| (vimain) Vehicle Impound   | VI           | 40       |
| (wamain) Wanted Person     | WA           | 1500     |

## Executing UNIX Shell Commands at Regularly Scheduled Intervals

The UNIX `crontab` command lets you create a crontab file that contains UNIX shell commands that the system is to run at regularly scheduled intervals. Using `crontab`, you can create cron jobs for printing reports at certain times and dates, making backups at night, and performing other oft-repeated, time-consuming tasks.

### NOTE

To execute a job only once at a specific time, use the UNIX `at` command instead of `crontab`. To execute a job only once as soon as system resources are available, use the UNIX `batch` command. Refer to your operating system documentation for more information on the `at` and `batch` commands.

This section provides introductory information on the `crontab` command and the cron daemon. For additional information, see your operating system documentation.

### How the cron daemon works

The cron daemon is the program that executes the commands stored in the crontab file (either `/var/spool/cron/crontabs/user-name` or `/usr/spool/cron/crontabs/user-name`). The cron daemon reads the crontab file when you restart the system and when you enter a `crontab` command to create, edit, or remove cron jobs. By checking for new or changed cron jobs at these times only, the daemon avoids the overhead of checking at regular intervals.

### NOTE

Commands in `.profile` are not executed unless you specifically include them in the crontab file.

After completing a cron job, the cron daemon usually sends its output to a log file. Depending on your system, this file might be `/usr/adm/cronlog` or `/usr/adm/cron/log`. After the cron job runs a few times and everything seems to be operating correctly, we recommend disabling the log file. Otherwise, the file can quickly become quite large.

You can pipe cron output to mail instead of a cron log file by adding the redirect instruction in the cron job command.

If an error occurs, the cron daemon sends mail to root.



### Access required to use crontab

To prohibit unauthorized users from submitting or removing cron jobs, the `crontab` command examines the `/var/adm/cron/cron.allow` and `/var/adm/cron/cron.deny` files to determine who should be granted access. These are files that you can create and edit, specifying one user name per line.

- If neither `cron.allow` nor `cron.deny` exists, only a UNIX Super User (root) can use `crontab`.
- If `cron.allow` exists, your user login name must be listed in it. Otherwise, you cannot access `crontab` even as a UNIX Super User. If your login ID is associated with more than one user name, `crontab` uses the first login name listed in the `/etc/passwd` file, regardless of which login name you are actually using.
- If `cron.allow` does not exist and `cron.deny` is empty, anyone can submit and remove cron jobs using `crontab`.

## Creating and editing a cron job file

Use the following procedure to create/edit a crontab file:

1. Enter the following command at the UNIX prompt:

```
crontab -l
```

This command displays the contents of `crontab`. You use it here to determine whether a crontab file already exists.

2. If a crontab file does *not* exist, skip to step 3.

If a crontab file *does exist*, protect its contents by making two copies, one for editing and one to use as a backup. To do this, enter the following commands, substituting your user name:

```
crontab -l > user-name.jobs
crontab -l > user-name.save
```

3. Using the UNIX text editor that is set by the `EDITOR` environment variable, edit `user-name.jobs` as desired. (The editor creates this file if it does not yet exist.) For the proper format to use when typing cron jobs in the file, see [“Format for cron job entries” on page 322](#).
4. To make `user-name.jobs` your new crontab file, enter:

```
crontab user-name.jobs
```

This `crontab` command creates the file `spool/cron/crontabs/user-name.jobs` in either `/var` or `/usr`, depending on your system).

5. You can enter `crontab -l` again to see the changes in your crontab file.

To overwrite an existing crontab file, enter **crontab filename**. Some systems, such as IBM or DEC, let you use the command **crontab -e** to open the existing crontab file for editing.

#### CAUTION

Always specify a filename or other parameter with the **crontab** command. Entering **crontab** without parameters erases your crontab file.

#### Format for cron job entries

Start each cron job entry on a new line of the crontab file. In each entry, provide the following information, in the order shown. Separate each field by a space or tab:

```
minute hour day of month month day of week shell command to run
```

The following entry starts the software and runs your agency's customized Fire Incident Summary report at 3:00 a.m. every day of the year:

```
0 3 * * * /usr/local/bin/spillman -h -s /sds/force/urpt/rpfriser
```

#### Valid values for cron job entries

Following are valid values for each field in a cron job entry.

##### Minute

Specify a number in the range 0–59.

##### Hour

Specify a number in the range 0–23, or use an asterisk (\*) to indicate “every hour.”

In the spring, when there is a non-existent hour because of daylight saving time, a command that is schedule to run multiple times during the non-existent hour runs only once. For example, a command scheduled to run at 2:00 a.m. and 2:30 a.m. in the MST/MST time zone runs only once, at 3:00 a.m.

##### Day of month

Use any of the following:

- A number in the range 1–31, indicating the specific day.
- Two valid numbers, separated by a dash, indicating an inclusive range of days.
- A list of valid numbers, separated by commas, indicating specific days.

- An asterisk, meaning “all days allowed.” Other variables in the job entry can affect the days allowed. For more information, [see “How crontab determines the dates on which to execute a job” on page 324.](#)

### Month

Use any of the following:

- A number in the range 1–12, indicating the specific month.
- Two valid numbers, separated by a dash, indicating an inclusive range of months.
- A list of valid numbers, separated by commas, indicating specific months.
- An asterisk, meaning “all months allowed.” Other variables in the job entry can affect the months allowed. For more information, [see “How crontab determines the dates on which to execute a job” on page 324.](#)

### Day of week

Use any of the following:

- A number in the range 0–6, indicating the specific day as follows:

|               |              |
|---------------|--------------|
| 0 = Sunday    | 4 = Thursday |
| 1 = Monday    | 5 = Friday   |
| 2 = Tuesday   | 6 = Saturday |
| 3 = Wednesday |              |

- Two valid numbers, separated by a dash, indicating an inclusive range of days of the week (for example, 1–5 for Monday–Friday).
- A list of valid numbers, separated by commas, indicating specific days of the week.
- An asterisk, meaning “all days of the week allowed.” Other variables in the job entry can affect the days allowed. For more information, [see “How crontab determines the dates on which to execute a job” on page 324.](#)

### Shell command to run

Enter the shell command to execute at the specified time(s). In the earlier example, the shell command is:

```
/usr/local/bin/spillman -h -s /sds/force/urpt/rpfrisr
```

If you include a per cent sign (%) in the command field, the cron daemon treats everything preceding the % as the command invocation and makes everything following the command available to standard input, unless you escape the per cent sign (\%). The following entry, for example, runs the UNIX `wall` command at 4 p.m. on Fridays that occur between December 10 and December 31. This `wall` command displays the following message on everyone's PC:

Happy holiday! Turn in time cards.

```
0 16 10-31 12 5 /usr/sbin/wall%Happy holiday!%Turn in time cards.
```

Blank lines and lines whose first non-blank character is the number sign are ignored.

### How crontab determines the dates on which to execute a job

In cron job entries, you can use asterisk(s) in the *hour*, *day of month*, *month*, and *day of week* fields as described above. An asterisk means “all allowed.” The dates on which the cron daemon executes a job depend on the combination of asterisks and specific dates you use. The following table shows the combinations of asterisks and specific dates you can use and how crontab interprets each combination:

| Use this for the day(s) of the month | This for the month(s) | And this for the day(s) of the week | To run the command                                                  |
|--------------------------------------|-----------------------|-------------------------------------|---------------------------------------------------------------------|
| *                                    | *                     | *                                   | Every day of the year                                               |
| *                                    | *                     | specific value                      | Every month, only on specified day(s) of the week                   |
| specific value                       | *                     | *                                   | Every month, only on specified date(s)                              |
| *                                    | specific value        | specific value                      | During the specified month(s), only on specified day(s) of the week |
| specific value                       | specific value        | *                                   | During the specified month(s), only on specified dates              |

| Use this for the day(s) of the month | This for the month(s) | And this for the day(s) of the week | To run the command                                                                         |
|--------------------------------------|-----------------------|-------------------------------------|--------------------------------------------------------------------------------------------|
| *                                    | specific value        | *                                   | During the specified month(s), every day                                                   |
| specific value                       | *                     | specific value                      | Every month, all days that match <b>either</b> the day of the week or the day of the month |

### Sample cron job commands

To write the time to the console every hour on the hour, include the following line in the crontab file:

```
0 * * * * The hour is `date`.>dev/console
```

To run the Calendar program at 6:30 a.m. every Monday, Wednesday, and Friday, include the following line in the crontab file:

```
30 6 * * 1,3,5 /usr/bin/calendar-
```

To run a CPIO backup at 3:00 a.m. every weekday, include a command similar to the following in the crontab file:

```
0 3 * * 1-5 /usr/local/spillman -h -s /sds/indb/bin/cpiobkup 2
>/tmp/cpiobkup.err 2>&1
```

In the preceding command, the **-h** parameter causes the backup to be run in hush mode so that no prompts appear when the command runs at 3:00 a.m. Call Spillman Technical Services if you do not have hush mode. The **-s** parameter tells crontab to run the command that follows.

### Removing a cron job file

To remove a cron job file, enter:

```
crontab -r filename
```

## Identifying Printers

This section describes how to determine the tty port number for each printer device in the system. Once you determine the tty number, attach a label with the correct tty name to the device and to each end of the device's cable. Also, label the multi-port connector so that you know which tty belongs to which connection. If a printer locks up, or you want to stop a print job, the label tells the user the number of the device so that you can fix the problem.

The following instructions apply for computers using UNIX operating systems. If the command listed below does not show the device tty, see your operating system manual. IBM users will need to use `smit` to check the port number for the printers.

1. Log onto the software.
2. Enter `sh` at the command line to shell out of the software.
3. At the operating system prompt, type `lpstat -t`, and then press Enter. The system displays a list of current printers, with their system names and tty numbers. The printer names are set when the printer is installed at your agency. They should be understandable.
4. Exit the shell by entering `exit` (Ctrl+D).

## Defining Printers

### NOTE

If your agency has only one printer, you do not need to define printers. Skip this section.

When generating a report, users can select the destination of the report. They can place it in a UNIX file, mail it to another UNIX user, or send it to a UNIX printer.

Most UNIX systems do not store printer information. Therefore, before users can send reports to a printer, you must create the list of available printers from which to choose. To do this, you must define the printers for UNIX and for Flex. Include all printers except those dedicated to checks or special paper. Do not include dedicated printers because, once a printer is in the list, anyone can print to it.

If no printers are defined in UNIX, follow your system's operating instructions for setting up printers. Then, describe printers to the software by following the steps below.

### CAUTION

When you are setting up your printers in UNIX, do not use pound signs (#) in the printer names. In the software, the pound sign is used to turn on specific features. If you include a pound sign in the printer names, the software might not function correctly.

Once you define a printer for UNIX and Flex, that printer's name and description appear in the list of available printers in the **Printers** field of the **Print** dialog box.

Follow these steps to define printers to the software:

1. Log on as root.
2. If the path is not set for root, type `/usr/local/bin/Spillman` and press Enter at the # prompt.
3. Access the software by typing `Spillman` and then pressing Enter.
4. Once in the software, type `sh` at the command line to go to the shell.
5. If no printers have been defined, you must create a directory for printer descriptions, change ownership of that directory to `sds`, and change the group to `force`. At the # prompt, enter the following commands:

```
mkdir $PRINTERS
```

```
chown sds $PRINTERS
```

```
chgrp force $PRINTERS
```

Now you can enter printer descriptions into the \$PRINTERS directory. Enter `cd $PRINTERS` to go to that directory.

6. If printer descriptions are already set up, enter `cd $PRINTERS` to go to \$PRINTERS, the directory containing printer descriptions.

#### NOTE

If printer descriptions have not been defined, an error message appears, stating no such file or directory exists. Perform the commands outlined in step 5.

Enter `ls` to see the list of printers.

7. For each printer you define, you must create a file with the same name as the printer queue name. To see all queue names, enter the following command:

```
lpstat -p
```

If the command does not work, check the printer names in your operating system's System Administration program.

8. Using MicroEMACS, vi, or any text editor that saves text to an ASCII text file, create a file for each printer. Give the file the correct name. For example, to use vi to create a file for the printer "lp0," enter `vi lp0` at the prompt.
9. Edit the file so that the first line begins with `+{` and then a description of the printer, as in:
 

```
+{lp0 Line Printer in Computer Room
```
10. When finished editing the file, save it in UNIX text or text-only format.
11. After creating a printer definition file for each printer, exit the shell by entering `exit` or pressing Ctrl+D.

## Testing the defined printers

To test your work, generate a small report as follows:

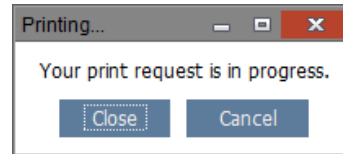
1. Enter `rpschema` at the command line. A screen appears, with the cursor in the **Table Name** field.
2. Enter `syschema` in the **Table name** field, and click **Print**.

The **Print** dialog box appears.



3. Click the **Printers** arrow, and select a printer from the list that appears. The name of that printer appears in the **Printers** field.
4. Click **Print**.

The following dialog box appears.



After processing the information, the software removes the dialog box and sends the information to the selected destination. To close the dialog box before the information is processed, click **Close** or press Enter. To cancel the print request, click **Cancel**. (If you click **Cancel**, the software notifies you that the print job has been canceled.)

5. Repeat steps 3–4 for each printer. For each printer that is set up correctly, a one-page report prints. For each printer that is set up incorrectly, you receive a root user mail message.

## ***Correcting a printer description file***

If you have created a printer description file that has the wrong name, you can delete the file or give it a different name by following this procedure:

1. Log on to the software as root.
2. Enter **sh** at the command line to go to the **#** prompt.
3. Type **cd \$PRINTERS**, and then press Enter.
4. To remove a printer file, enter:

```
rm filename
```

For example, to remove the **lp0** file, enter:

```
rm lp0
```

To move or rename the file, enter:

```
mv current filename new-filename
```

For example, to move or rename **lp0** as **sttyla**, enter:

```
mv lp0 sttyla
```

## Adding and Retiring Users

### Adding a user in Flex

Use the following procedure to add a new Flex user:

1. At the operating system level, set up a UNIX login for the user.
2. Assign the user to an UNIX user group if appropriate.
3. In the Official Names table (`apnames`), create a record assigning the user a unique Name Code. Spillman Technologies recommends using the user's payroll ID or some other code that you will never reassign to another employee.
4. In any individual modules that require you to enter information about agency users, create the records needed for the new user. For example, if you have the Personnel Management module, add the employee in the Employee (`employee`), Employee Training (`training`), and Employee Medical (`medical`) tables.
5. Edit the Spillman script as necessary.
6. If you must set any environment variables *specifically* for the new user, edit that user's .profile file.
7. In the System Privileges screen (`sypriv`), define any security privileges that apply *specifically* to the new user. For example, if the user's group has an Add privilege that this user should not have, simply deny the user the Add privilege at the user level. Privileges set for an individual user override privileges set for the group.

Refer to the *Security Setup and Maintenance Manual*, for complete instructions on setting up security for all users (the world), user groups, and individual users.

### Retiring a user in Flex

When a user leaves the agency, either through retirement or job termination, immediately lock the user out of the software. Use either of the following methods:

- Change the user's password. (See the *Security Setup and Maintenance Manual* for instructions on changing passwords.)
- Deny the user access to the Main Menu.

To deny access to the Main Menu, go into the System Privileges screen (sypriv) and create a sypriv record similar to the following:

If you want to deny access to UNIX as well as Flex, retire the user's account in UNIX. Refer to your operating system manual for instructions.

## Reassigning a Name Code

Spillman Technologies recommends using Name Codes that you will never reassign. However, if you must assign the Name Code of a retired/terminated user to another user, first change the original user's code in the Official Names table (apnames). Use the following procedure:

1. Enable **SU** as described in the *Security Setup and Maintenance Manual*.
2. At the command line, type **apnames** and press Enter.
3. Search for the user's apnames record.
4. When the record is displayed, click **Mod** and modify the **Name Code** field. Type the new code, and click **Accept** (Alt+A). For example, if the user's code is 348, you might change it to R348 to indicate "retired" or T348 to indicate "terminated."

When you click **Accept**, the software prompts:

Change all occurrences of this value?

5. Click **OK** or press Enter.

Changing all occurrences of the value ensures that any references that are linked to the original user's name remain linked to that user's name. If you click **No**, the software cancels the change.

#### **NOTE**

If you want to change a code without changing any of the references that are linked to the code, please call Spillman Technical Services for assistance.

## Controlling Daemons

The Daemon Manager provides a central means of controlling all interface daemons and background server processes. You can control the status and parameters of functional groups or individual processes. Examples include SMobile servers, External Communication processes, and ODBC and XML connections.

The Daemon manager includes two screens: Daemon Manager (`sydaemon`) and Daemon Group Manager (`sydgmgr`).

### Using the Daemon Manager screen

The Daemon Manager screen allows you to set up and manage individual daemons. To open this screen, enter **sydaemon** at the command line.

- To start a daemon, locate the record and click the **Start Daemon** button on the Daemon Manager screen toolbar.
- To stop a daemon, locate the record and click the **Stop Daemon** button on the Daemon Manager screen toolbar.
- To restart a daemon, locate the record and click the **Restart Daemon** button on the Daemon Manager screen toolbar.

To create a new record on the Daemon Manager screen, use the following fields:

- **Daemon ID.** Displays a software-generated daemon ID record number.
- **Daemon Group.** Lookup field. Enter the name of the group of daemons to which the daemon you are creating belongs.
- **Description.** Enter a description of the function of the daemon.
- **Exec Path.** Enter the path to the executable for this daemon.
- **Exec Name.** Enter the name of the executable for this daemon.
- **Exec Optn.** Enter the options you want the software to pass as arguments to the daemon executable.
- **Redirect Stderr to.** Enter the file in which you want daemon error messages to appear.
- **Redirect Stdout to.** Enter the file in which you want daemon information messages to appear.
- **Kill Sig.** Lookup field. Enter the signal you want the software to use to kill this daemon.
- **Enabled.** Lookup field. Determines whether the daemon can be started.

- **Start on Boot.** Lookup field. Indicates whether this daemon should automatically start when the machine is booted.
- **Run a User.** Enter the name of the user that this daemon will run under.
- **Get Env From.** Lookup field. Enter the syenv configuration that defines the modifications to the base environment the daemon runs with.
- **Status of Daemon.** Enter the value that represents the current status of the daemon. For example, enter **Running**, **Starting**, **Stopping**, **Stopped**, or **Restart**.
- **Running Since.** The time and date when the daemon was last started. If the value in the **Status of Daemon** field is not **Running**, this field is blank.
- **Process ID.** The process ID of this daemon, if it is currently running.

### ***Using the Daemon Manager List screen***

To view a list of all daemon records from the Daemon Manager screen, click the **List** button. From the List screen, you can start, stop, and restart daemons.

- To start all daemons in the list, click the **Start All** button. If the list is not generated from a search set, the button will start all daemons.
- To stop all daemons in the list, click the **Stop All** button. If the list is not generated from a search set, the button will stop all daemons.
- To restart all marked daemons in the list, click the **Restart All** button. If the list is not generated from a search set, the button will restart all daemons.

### ***Using the Daemon Group Manager screen***

The Daemon Group Manager screen allows you to set up and manage groups of daemons. To open this screen, enter **sydgmgr** at the command line.

- To start a group of daemons, locate the group record and click the **Start Daemon** button on the Daemon Group Manager screen toolbar.
- To stop a group of daemons, locate the group record and click the **Stop Daemon** button on the Daemon Group Manager screen toolbar.
- To restart a group of daemons, locate the group record and click the **Restart Daemon** button on the Daemon Group Manager screen toolbar.

To create a new record on the Daemon Group Manager screen, use the following fields:

- **Group.** The software displays a ID number for this daemon group.
- **Description.** Enter a description for this group of daemons.
- **Seq.** Lookup and detail field. The sequence number for the daemons in the current group.
- **Desc.** Contains the descriptions of the daemons in the current group.
- **Name.** The names of the executables for the daemons in this group.
- **Status.** The current status of each daemon in this group.

### ***Using the Daemon Group Manager List screen***

To view a list of all daemon records from the Daemon Group Manager screen, click the **List** button. From the List screen, you can start, stop, and restart daemons.

- To start all daemon groups in the list, click the **Start All** button. If the list is not generated from a search set, the button will start all daemon groups.
- To stop all daemon groups in the list, click the **Stop All** button. If the list is not generated from a search set, the button will stop all daemon groups.
- To restart all marked daemon groups in the list, click the **Restart All** button. If the list is not generated from a search set, the button will restart all daemon groups.





# Chapter 12

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## *Data Auditing*

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## Introduction

Auditing data in the software is one of your many on-going responsibilities. Because errors are an inevitable part of data entry, you must constantly work to correct and minimize them.

An additional factor affecting data auditing is disk space. Depending on the size of the disk purchased with the system, one of the following will probably eventually occur:

- The disk becomes full and users cannot enter new information without deleting some information.
- The disk contains so much information that system response time is slower than is desired. To improve software performance, your agency might want to remove information that is no longer needed.

These factors require that you decide which information to transfer to other storage media. It is important to emphasize to the agency head and other users that the information is not lost. Transferred information is no longer instantly available at the computer but can be obtained from the archive medium selected by the agency.

This chapter provides information that you need in order to keep accurate, current data records. The following tasks are described:

- Removing old or inaccurate data
- Purging radio log records
- Locating and eliminating duplicate records—Names and Vehicle
- Printing and deleting expired warrants
- Avoiding duplicate entries
- Using the master log
- Viewing modification history
- Running auditing reports

## Removing Data

One of your data auditing tasks is the removal of data. You might remove data because it is old or inaccurate or just to free up disk space. However, before making decisions on removing data, review the following guidelines:

- Never take Name records off line. If the present disk storage is insufficient to hold the full Names table, your agency needs more disk storage.
- Never take the system involvement table off line. For each Name record, the system involvement table provides an index to every involvement in any other table. Even if the related records have been deleted, the involvements tell users where the records exist. Often an involvement provides enough information so that the user doesn't need to access another table or the archives.
- Never take Arrest records off line. All arrest records must be complete and in the same storage location when a user makes an inquiry.
- Leave Wanted person records on line as long as possible. They are not as essential as Name and Arrest records, but they contain valuable information about persons with criminal histories.
- Never transfer Personnel files for current employees from the disk.
- Leave Fleet Maintenance records for current vehicles on line until the vehicles are disposed.
- Purge the Premises Information tables of outdated information. There is no reason for keeping information that is not current.

Retain all other tables in accordance with your agency's priorities, as guided by your agency's state archive and data retention regulations. Your agency must determine which information tables are most important when disk storage space becomes full.

### NOTE

Deleting records in a table frees up space in only that table. For example, deleting radio log entries frees up space in only the radio log table. To free up disk space in general, you must rebuild files. For instructions, contact Spillman Technical Services.

## Deleting groups of records

You can delete several related records at one time by deleting an entire selection set. The software deletes these records even if they have involvements, so be careful. If you think you will need any record in the selection set, cancel the operation.

### NOTE

You must have delete access to the program in which you wish to delete records. (Your Super User access has such access to all programs.) Set the delete access in `sypriv` in the **May User Delete Records** field.

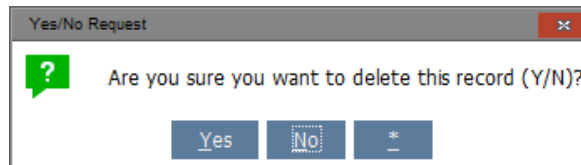
To delete a group of records, follow these steps:

1. Access the table from which you want to delete records.
2. Click **Srch** and perform a search. The records that match your search criteria form a selection set, and the first of these records appears on the screen.
3. Use the **List** button to check the records in the selection set. View each record so that you know what you are deleting.

The software does not let you delete the selection set until you view the last record.

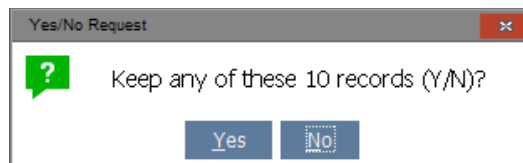
4. Click **Del**.

The software prompts:



5. Click **\*** to signal the software to delete all the records in the current selection set. The software asks if you want to delete the entire selection set.
6. Click **Yes** to delete, or click **No** to cancel the operation.

The software prompts:



7. Click **No** to delete all of the records in the selection set, or click **Yes** to cancel the operation.

## Purging Radio Log Records

The radio log file fills up quickly and therefore you need to purge older records regularly. Use the following two reports when purging radio log records:

- **Dumping Radio Logs**—Run the `rprldump` report first to back up the radio logs for archival purposes.
- **Deleting Radio Logs**—The `rprldel` report deletes radio logs. This report lets delete all radio logs or only the radio logs that have no involvements associated with them. Spillman Technologies recommends deleting only those radio logs with no involvements. The output of this report indicates how many records were deleted.

Deleting radio log records does not reduce the size of the radio log file on the hard disk. However, it makes room within the file for new radio log records. This helps keep the file from growing as quickly.

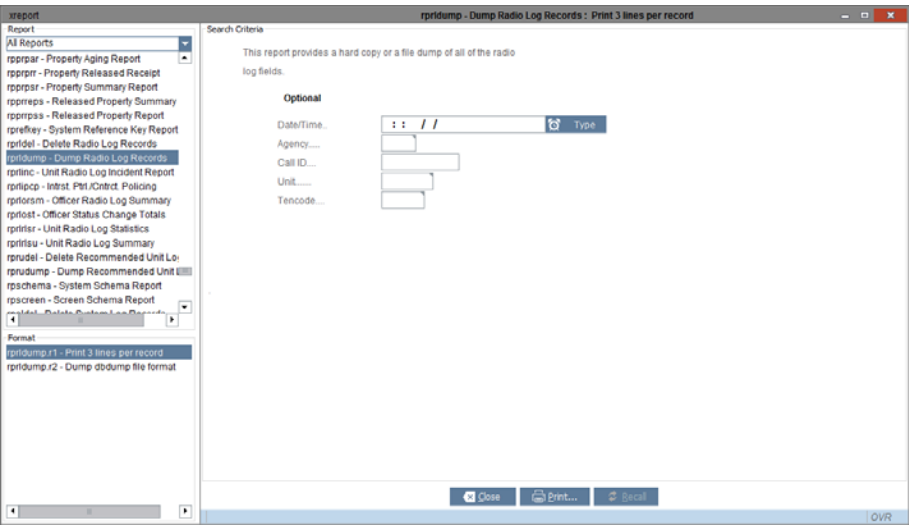
If you *must* conserve disk space, call Spillman Technical Services for help with packing the radio log file. Use packing only as a last resort.

### Dumping radio logs before deleting them

The Dump Radio Log Records report (`rprldump`) has two formats available. The type of report generated depends on the report format selected and the report destination.

|                    |                                                                                                                                                                                                                                                                                                                                                  |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>rprldump.r1</b> | The <code>rprldump.r1</code> format produces a printout of three lines from each radio log record that matches the search criteria. Spillman Technologies recommends this format for hard copy printouts.                                                                                                                                        |
| <b>rprldump.r2</b> | The <code>rprldump.r2</code> format produces a dump of the radio logs that match the search criteria, in <code>dbdump</code> file format. Spillman Technologies recommends this format for tape archival. Specify a file as the destination. Then, you can save the file to tape, using the UNIX command <code>tar</code> or <code>cpio</code> . |

The Dump Radio Log Records report screen appears as follows.



Fields

Date/Time

mm/dd/yyyy, military time. Enter the date and time range of the radio log records to include in your report.

Agency

4 characters, coded field (apagency). Enter the agency code to narrow the search.

Call ID

9 characters, coded field (cdcall). The call ID of the assigned call. By searching for records with blank **Call ID** fields, you can dump radio logs not associated with an incident.

Unit

6 characters, coded field (cdunit). Enter the unit code to further narrow the search to log entries associated with a particular unit.

Tencode

5 characters, coded field (tb10code). Enter the ten-code associated with the log entries you wish to dump.

Deleting radio log records

You can delete radio log records using the Delete Radio Log Records report (rprldel). Two formats are available for this report:

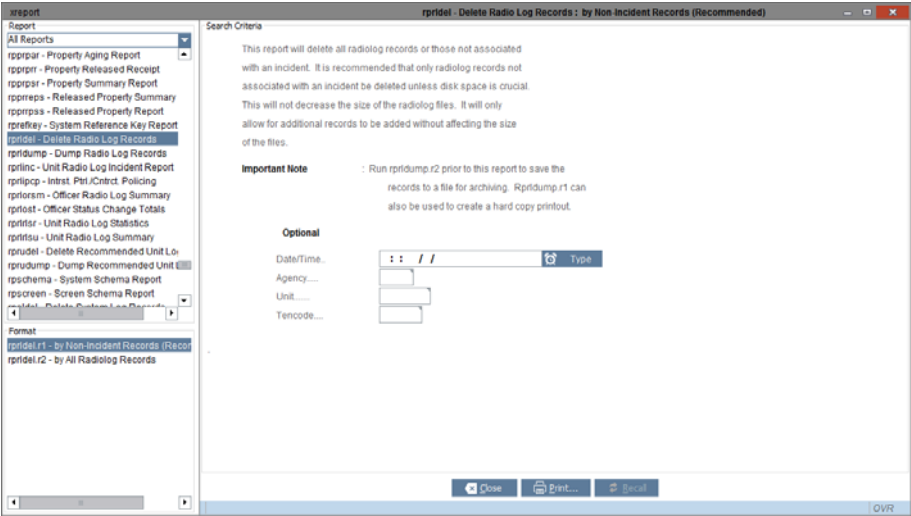
**rprldel.r1** The rprldel.r1 format deletes all radio log entries that have no incident associated with them (for example, daily sign-in and sign-out records for officers). Spillman Technologies recommends using this format.

**rprldel.r2** The rprldel.r2 format deletes all radio log records that match the search data you enter on the rprldel report screen.

CAUTION

It is extremely important to maintain an archive of your radio log activity. Run rprldump.r2 prior to this report to save the records to a file. Then, archive the file to a tape. Where required, rprldump.r1 can be used to create a hard copy printout.

The Delete Radio Log Records report screen appears as below:



The report selection data fields on the Delete Radio Log Records report screen are the same as on the Dump Radio Log Records report screen, with the exception of Call ID. Refer to the selection field descriptions above for more information.



## Eliminating Duplicate Names

The Spillman Public Safety Software is designed around the central principle of single inquiry. In the Names table this means that there should only be one Name record for any person and that all other records involving that person are referenced to one Name record. The result is that a Names record search will retrieve a single record.

If duplicate names exist, the involvements for that person are spread over two or more Name records, causing users to retrieve only partial information during searches. Therefore, you should be careful to eliminate duplicate names whenever you find them.

Because of human error or uncertainty about the identity of persons involved with law enforcement agencies, auditing the Names table and combining duplicate records is a continuing duty of the SAA. Duplicate records may be minimized through training and careful data entry, but inevitably there will be duplicate records that must be corrected.

Using the Name Audit and Merge Program, you have three ways to correct duplicate Name records:

- Merge the Name records, using the most valid information from each.
- Create an alias record.
- Keep both records as valid Name records.

### NOTE

Before merging Name records that have images attached, consult the online Help or the *Spillman PictureLink Manual* for information about using the database with PictureLink.

Flex also provides a new level of validation that enables users to decrease the possibility of creating duplicate Names records. The software can automatically search the database for potential duplicate records based on Social Security Numbers and driver's license information. For more information on setting up the required System Privileges and using this functionality, see the *Security Setup and Maintenance Manual* and the *RMS User Manual*.

## Name audit and merge application parameters

Before running the Name Audit and Merge Program, you must set the following application parameters to the desired values: nmlocid, nmdupdat, markdup, and nmerglog.

**Deleted Local ID  
Number Code  
(nmlocid)**

Nmlocid gives you the option of saving, in the Local Identification detail table (NMLOCAL.localid), all name numbers for names that are deleted by the name merge program. The parameter indicates with each name number, the code to be entered by the software. If this parameter is absent or you leave it blank, the software does not save the name numbers.

| Parameter name | Description                  | Initial Value                                                                                                                                                                                         |
|----------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| nmlocid        | Deleted local ID number code | <b>DNM</b> Duplicate Name Merge. You can specify any 3-digit code that your agency wants. Before you enter this value, make sure that it is entered in the Names Local ID Type Codes table (nmtbloc). |

**Save Duplicate  
Name Data  
(nmdupdat)**

Nmdupdat indicates whether the data for the duplicate name is entered in the real name record or is cleared from the duplicate name without being saved. This parameter does not apply to the nmmain record when one name is converted into an alias for another during the merge. However, it does apply to the nmextra record for that name.

| Parameter name | Description              | Initial Value |
|----------------|--------------------------|---------------|
| nmdupdat       | Save duplicate name data | <b>YES</b>    |

When saving the data in the **Comments** field or the **Merge** field of the real name, the software uses the following format:

The following data is from name #11111, merged by M Jones on 07:30:30 10/31/93:

|        |           |
|--------|-----------|
| 3      | 36        |
| Last   | Wilkinson |
| Height | 5'07"     |
| Weight | 125       |

**Mark  
Non-duplicate  
Names (markdup)**

Markdup causes the name audit program to mark each real name as it is audited. Name records that appear to be duplicates are marked, indicating that the record was audited and found to be valid.

- If you set `markup` to **YES**, the software marks the name (in a field not visible to the user) as audited. The name no longer appears in any audit files.
- If you set `markup` to **NO**, the record is not marked and the name may appear in future audit files.

| Parameter name      | Description               | Initial Value |
|---------------------|---------------------------|---------------|
| <code>markup</code> | Mark non-duplicate names? | <b>NO</b>     |

### Create Name Merge Log File (`nmerglog`)

`Nmerglog` lets you create a log file identifying users who often enter duplicate names and might need more training. The log file contains the user identification number (UID), login name, and name of the person who added the more recent of the two name records being merged.

For example, if Edward Ford (login name `eford`) adds the duplicate name William John Fisher at 7:15 a.m. March 19, 1998, the log file contains the following entry:

```
William John Fisher 07:15:00 03/19/98 204 eford Edward Ford,,,
```

The Spillman software does not generate any reports from the log file. You must have a working knowledge of UNIX to view the file or to use it to generate reports.

For example, to create a log file named `namemerg.log` in the `/opt/force/log` directory, set `nmerglog` to `/opt/force/log/namemerg.log`. The pathname for the log file must be valid, and you must have the necessary Read and Write permissions to create the log file in the specified directory.

To monitor the log file, shell out of the software and use your operating system commands to view the file.

#### NOTE

Once the Name Merge Log file is created, the software adds an entry to it whenever the Name Audit and Merge program finds a duplicate name. The file can become very large. Edit the file or turn off logging as needed to keep the file from becoming too large. To turn off logging, remove the `nmerglog` application file parameter.

If a name merge is canceled because of a software error, any log entries already made remain. If you cancel the name merge, no log entries are made. Aliases, as well as duplicate names, are logged.

| Parameter name | Description                | Initial value |
|----------------|----------------------------|---------------|
| nmerglog       | Create name merge log file | NO            |

## Merging duplicate records manually

Instruct users that whenever they find duplicate Name records, they should send you those Name record numbers by e-mail or other means. You can enter the duplicate Name record numbers manually.

To do so, follow the steps below:

1. At the command line, enter the program name and the two duplicate records, for example, **namemerg 17 27**.
2. The Name Audit and Merge screen appears, displaying the two name numbers.

Similar fields are provided for comparison, such as: last, first, middle, SSN, and driver's license number. This gives you the opportunity to view information regarding the two numbers before deciding to merge. You can also change the name numbers if one is incorrect.

3. Decide which number to retain as the real name.
4. Click **Ret1** or **Ret2** accordingly to merge the Name records.

The software prompts `Please wait`. The system is transferring data from the duplicate or alias name record to the real name record. The software then changes the headings on the screen to `Real Name` and `Duplicate Name` and places the real name record at the top. The software prompts you to select the information to retain in each field of the real name record.

5. For each field, enter or click the number that corresponds with the information to retain (either **1** for the real name record or **2** for the duplicate record).

The program merges the records and then returns you to the Name Audit and Merge screen.

6. Click **Exit** to return to the Main Menu.

**Merging names manually**

You can also merge Name records manually through the Name Audit and Merge program. Follow these steps:

1. Access the Name Audit and Merge program from the System Maintenance menu, or enter **namemerg** at the command line.
2. Click **Name**. The Name Audit and Merge screen appears.
3. Enter the name numbers in the Name #1 and Name #2 fields.
4. Perform a lookup to search the Master Names table, to confirm that the two name numbers entered are, in fact, those you wish to merge.
5. If you specified incorrect numbers, click **Cancel** (ALT+C). Otherwise, click **Ret1** or **Ret2** to merge the records.

The software prompts Please wait. The system is transferring data from the duplicate or alias name record to the real name record.

The program merges the records and then returns you to the Name Audit and Merge screen.

6. Click **Exit** to return to the Main Menu.

**Running the namemerg audit program**

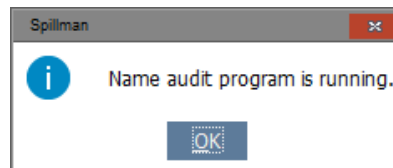
The software provides an audit program for finding duplicate names. This Name Audit and Merge program finds possible duplicate names in the Names table. It checks for duplicate driver's license numbers, FBI numbers, local ID numbers, last names, dates of birth, or Social Security Numbers, depending on the format you select. To use this program, follow the steps below:

1. Access the Name Audit and Merge program (namemerg).
2. Click **Options** to display the formats that you can use. Possible formats are:

| This format | Sorts by                   |
|-------------|----------------------------|
| namemerg.r1 | Social Security Number     |
| namemerg.r2 | FBI Number                 |
| namemerg.r3 | State ID Number            |
| namemerg.r4 | Driver's License Number    |
| namemerg.r5 | Last Name, First Name, DOB |

3. Select the format by which to sort.

4. Click **Go** to start the program. The following prompt appears:



5. Press Enter to return to the menu.

While the audit is running, you can work on something else. When the report is finished, the software sends you an e-mail message that indicates the time of completion and the number of duplicates found.

#### NOTE

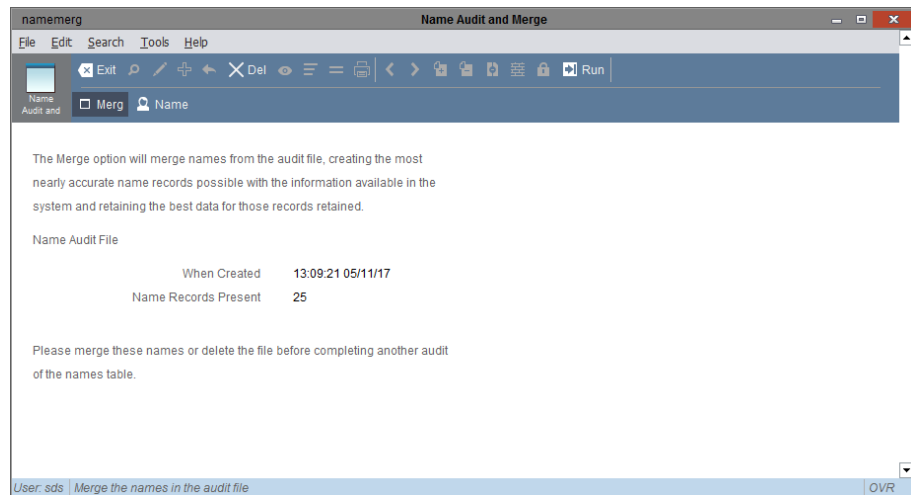
The software allows only one name audit to run at any given time. If the Name Audit program is already running when you choose Name Audit and Merge from the menu, a message similar to the following appears: A name audit is in progress by Johnd. If you initiated the original audit, the software prompts: Do you want to (C)ancel the audit, (M)erge manually, or (E)xit? The audit can be canceled only by the initiator or the SAA logged on as the root user. If a user attempts to cancel another user's audit, the following message appears: Audit can only be canceled by initiator: Johnd.

#### Merging duplicate records

After the namemerge audit program finds duplicate Name records, run the namemerge program. Follow these steps:

1. Access the Name Audit and Merge program.

A screen similar to the following appears:



2. Click **Merg** to begin the merge program.

If you click **Del**, the software deletes the audit file and you will need to run `namemerge` again before continuing the merge.

The software finds possible duplicate Name records and organizes them in pairs during the Name Audit. The first pair of duplicate

names appears on the Name Audit and Merge screen, similar to the following.

| Name #1 |       |           |        |     |             |                     |            |          |            |                                          |
|---------|-------|-----------|--------|-----|-------------|---------------------|------------|----------|------------|------------------------------------------|
| Number  | Last  | First     | Middle | Sfx | SSAN        | Driver License Nmbr | Birth Date | State ID | FBI Number | Address                                  |
| 153     | Smith | Hernandez | Bernal |     | 123-45-6789 | 92851               | 03/15/79   |          |            | 702 E TUSCALOOSA ST                      |
|         |       |           |        |     |             |                     |            |          |            | City: Springfield, State: ND, Zip: 79134 |

| Name #2 |       |       |        |     |             |                     |            |             |            |                                          |
|---------|-------|-------|--------|-----|-------------|---------------------|------------|-------------|------------|------------------------------------------|
| Number  | Last  | First | Middle | Sfx | SSAN        | Driver License Nmbr | Birth Date | State ID    | FBI Number | Address                                  |
| 462     | Smith | Bill  |        |     | 123-45-6789 | 83477235343         | 09/03/76   | 09-874-9483 |            | 105 E QUEENSBURY LN                      |
|         |       |       |        |     |             |                     |            |             |            | City: Springfield, State: ND, Zip: 79134 |

User: sds | View the full name record OVR

- If you wish to merge the records, decide whether to retain Name 1 or Name 2 as the real name.
- Click **Ret1** or **Ret2**. (Click **Alias1** or **Alias2** if you wish to create an alias record. See “Creating alias records” on page 354.)

The software prompts Please wait. The system is transferring data from the duplicate or alias name record to the real name record.

#### NOTE

The software locks both Name records so that other users cannot access them during the merge. If you entered a code in the `nmlocid` parameter, the software enters the duplicate name number in the Local ID detail window of the real name record.

The software changes the headings on the screen to Real Name and Duplicate Name and places the real name record at the top. Then, it prompts you to select the information to retain in each field of the real name record.

The records are merged, and the next set of duplicates appears on the screen (if the audit found more than one set of duplicates).



5. Repeat steps 3 and 4 for each set of duplicates you wish to merge.

When the last set of duplicates is merged, the screen lists the number of merged and deleted records.

6. Press Enter to return to the Main Menu.

If you have name numbers that were deleted from the audit file without being audited, one of two things happened:

- One or both of the name records were modified or deleted after the audit file was created and before the merge was completed.
- The software was unable to get a record lock on one of the name records.

### How namemerg transfers data

When a duplicate name record is merged into a real name record, the software transfers data in the following manner:

- If a field contains data in one record but not the other, the data is retained in the real name.
- If a field contains the same data in both name records, the data is retained in the real name.
- If data in duplicate and real name fields differs, the software enters all differing data from the duplicate name into the real name record or deletes the information, depending on how you set the parameter `nmdupdat`.
- If the name records contain different addresses, the software prompts `Keep (1) first address or (2) second address?` The address you choose is retained on the real name record. The address not chosen is entered into the history table.
- If the addresses are the same, the address on the real name is retained and the name and address of the duplicate are entered into the history table.
- If the real name does not have an address and the duplicate has an address, the address from the duplicate is copied to the real name. The software does not prompt you, and the name on the real name is entered to the history table.
- If you modify an address, the software places an asterisk (\*) next to the most recently modified record.
- The software might prompt `Please wait`. The system is transferring data from the duplicate or alias name record to the real name record. The software transfers all detail table data (name history records, M.O. data, scars data, local ID

data), comments, alerts, and involvements from the duplicate name to the real name according to the following logic:

- If the detail fields in the real name record and the duplicate name record are identical, the entry is not transferred.
- If the detail tables contain different information, the software transfers information from the duplicate or alias name by assigning the next sequential number in the real name record.
- Each detail record is appended to the detail table of the real name.
- When the `mgtxoloc` application parameter is set to NO, all comments from the duplicate record are appended to the **Comments** field of the real name record.
- When the `mgtxoloc` application parameter is set to YES, all comments from the duplicate record are appended to the **Merge** field of the real name record.
- At the end of the merge, the software deletes the duplicate Name and Additional name records.

#### **Name Merge error message**

If you are trying to merge Name records that have related records that do not allow duplicates, you receive an error message. For example, if the Names records you are merging both have Premises records, then error messages similar to the following appear:

```
Cannot Merge! Duplicate records #x and #y in
bimain.busnid.
```

```
Name Merge aborted. Please fix errors then try the name
merge again.
```

The error message identifies the table and field of the related records. These records cannot be merged by the program. You must merge them manually.

### **Creating alias records**

You can also create an alias record from duplicate name records. Follow these steps:

1. Access the Name Audit and Merge program. The Name Audit and Merge screen appears.
2. Enter the name numbers of the duplicate records in the Name #1 and Name #2 fields.
3. Decide which record to use as the real name.
4. Click **Alias1** or **Alias2** accordingly.

The software prompts `Please wait`. The system is transferring data from the duplicate or alias name record to the real name record.

The software locks both name records, changes the heading on the screen to `Real Name` and `Alias Name`, placing the real name record at the top and completes the conversion.

5. Click **Exit** to return to the Main Menu.

**NOTE**

Be aware that when you make a name record into an alias, neither record can already be an alias.

The software creates an involvement between the real name and the alias name. When you create an alias record from duplicate name records, the software leaves the name data (last name, first, middle, and suffix) as it is in each record.

Information is transferred to the real name record, using the following logic:

- If a field contains data in one record but not the other record, the software includes that data in the real name record. For example, if the alias record contains a suffix but the real name record does not, the suffix is copied to the real name record. If the real name record contains an address but the alias record does not, the address is retained in the real name record.
- If the two records contain the same data in a particular field or fields (other than the name fields), the software clears those fields in the alias name record.

All duplicate data other than name data is deleted from the alias name record.

- If the name records contain different data in a particular field, the data is retained in both name records (`nmmain`).
- The software either enters data from the additional names (`nmextra`) record for the alias name into the comments of the real name, or deletes the information, depending on the parameter `nmdupdat`.
- The software transfers all detail table data (name history records, M.O. data, scars data, local ID data), comments, alerts, and involvements from the alias name to the real name as explained below, allowing the user to access all information from the real name record.
  - If the detail fields in the real name record and the alias name record are identical, the detail information is deleted from the alias record.

- For detail tables containing different information, the software transfers information from the alias name by assigning the next sequential number in the real name record.
- Each detail record is appended to the detail table of the real name.
- All comments from the duplicate or alias name are appended to the **Comments** field of the real name record.

### ***Keeping both names***

If both names are valid, click **Keep**. The software marks both records so that they are kept in the Names table. These records will also appear in future name audit files.

#### **NOTE**

Each time you choose an option, the software locks the name records displayed on the screen so that other users cannot access those records during the merge. The software also marks each real name record as a real name record that has been audited.

## Eliminating Duplicate Vehicles

Because of the **Status** and **Status Date** fields on the Vehicle screen, some agencies like to create multiple Vehicle records for various involvements of a single vehicle. If your agency is doing this, you won't want to eliminate duplicate Vehicle records. If it is not, you might want to audit the Vehicle table occasionally and eliminate duplicate Vehicle records.

Instruct users that whenever they find more than one Vehicle record for any vehicle, they should send those Vehicle record numbers to you by e-mail or other means. They should also identify the best record number so that it may be retained and the others deleted.

### Finding duplicate records

The software provides the Vehicle Table Audit Report program (rpvhvtar) for finding duplicate vehicle records. It checks for duplicate license numbers or VIN, depending on the format you select.

To find duplicate vehicle records, follow the steps below:

1. Access the Vehicle Table Audit Report (rpvhvtar). The cursor rests at the **Responsible Agency** field.
2. In the **Format** area, select the format in which to run the report. The possible formats are as follows:
  - by License Number
  - by VIN
3. Enter appropriate search criteria: agency, vehicle make, vehicle model, UCR status code, and local status code.
  - If you enter a value in the **Local Status Code** field, then the **Print** dialog box opens.
  - If you do not enter a value in the **Local Status Code** field, click **Print** (ALT+P). The **Print** dialog box opens.
4. Set your printing options. See the Online Help for more information.
5. Click **Print** (ALT+P).

A dialog box appears, informing you that your print request is in progress.

After processing the information, the software removes the dialog box and sends the information to the selected destination. To close the dialog box before the information is processed, click **Close** or press Enter. To cancel the print request, click **Cancel**. (If you click

**Cancel**, the software notifies you that the print job has been canceled.)

The software prepares a report listing all duplicate vehicles according to the criteria selected. It lists the Vehicle IDs, as well as the common denominator (for example, the License Number, if you selected that format), the make, model, and owner name.

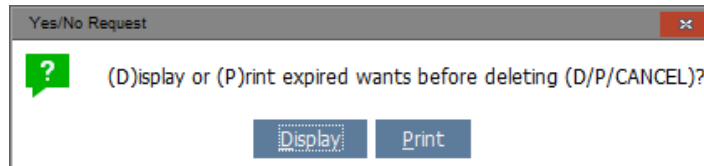
6. After you verify that the records listed are actually duplicates, decide which record to keep. Copy pertinent information from the record that you are not keeping, and then delete that record.

## Printing and Deleting Expired Warrants

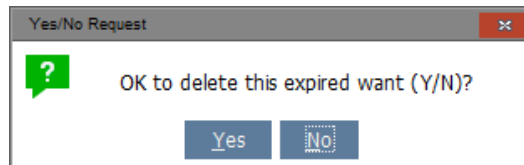
Periodically you might want to delete expired warrants from the database. To do so, you use the Print and Delete Expired Wants program (waprexp).

To delete expired warrants, follow these steps:

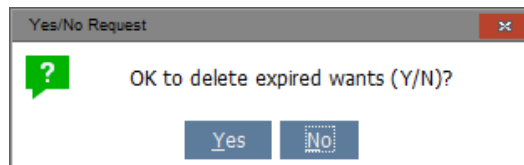
1. Access the Print and Delete Expired Wants program (waprexp). The software prompts:



2. Click **Display** or **Print** to display or print expired warrants.
  - If you click **Display**, the software displays the records for the expired warrants, one by one, giving you the opportunity to delete or not delete each one.



- If you click **Print**, the software displays a list that contains, for each expired warrant: the warrant number, wanted person's name, issue date, expiration date, disposition and type. The software prompts:



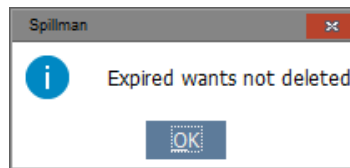
3. Click **Yes** or **No** to delete or not delete expired warrants.
  - If you clicked **Display** and you wish to delete the warrant displayed on the screen, click **Yes**. The next expired warrant is displayed. If you do not want to delete the current warrant, click **No**. The next expired warrant is displayed.

- If you clicked **Print** and you wish to delete all the warrants, click **Yes**. The software deletes the warrants one by one.

**NOTE**

If a want has non-system involvements, the software does not delete it. It displays an error message for that warrant.

- If you clicked **Print** and you do not wish to delete any warrants at this time, click **No**. A message appears:



- Press Enter to clear the message. You are finished.
4. The software indicates the number of warrants deleted with the following message: x expired wants deleted.
  5. Press Enter to exit the Print and Delete Expired Wants program.



## Working with Involvements

The Involvements table contains links between pairs of records from other tables and thereby creates an “involvement” for each of the records. Not all tables need this capability. Consequently, the **Invl** button does not appear on the toolbars of all tables.

All tables whose records can have involvements have a field containing an 8-character record ID. This record ID is a unique key for each record in the table. The Involvements table uses this record ID number, as well as a coded form of the table name, to identify the records involved.

Tables that use involvements have the **Invl** button (assuming the user has Read privilege to the Involvements table). For example, the Names table can have involvements. If the user has Read privilege for the Involvements table, the **Invl** button appears on the Names screen.

### Understanding primary table vs. involved table

From time to time in this manual, we use the terms “primary table” and “involved table.”

The primary table is the original screen from which the user is working. For example, if you click **Invl** at a Name screen and the software pulls up the involvements for that name, the Names table is the primary table.

The involved table is the table associated with the primary table through the involvements. Suppose, for example, that you go to the Involvements screen for a person’s Name record. The Involvements screen lists a vehicle involvement with this person as the owner of the vehicle. In this case, the vehicle record is the involved record.

### System involvements

Some involvements must be present to maintain the integrity of the software. These “system involvements” are those the software makes automatically. For example, when you designate a Name record as the Owner of a vehicle (by entering that Name number in the **Owner** field), the software creates a system involvement connecting the Name record with the Vehicle record.

If the application parameter `inmodate` is set to **YES**, you can modify the date of system involvements from the Involvements screen. If you have Super User (SU) access privileges, you can delete system involvements. When a user changes the value of the **ID number** field that has a system involvement associated with it, the system involvement automatically reflects the change. If a user clears the **ID number** field, the system involvement is deleted.

For example, if you change the **Owner ID Number** field in a Vehicle record (change the owner from John Doe to Henry Smith), the system involvement automatically reflects this change. Or, if for some reason you clear the **Owner ID Number** field of any entry, the software deletes the system involvement.

## Deleting and modifying involvements

Delete or modify a line from an involvements screen *only when absolutely necessary*. The involvements line is the link between two records (for example, between a Name record and a Vehicle record). Without the involvement, you do not know which records are related to the current record.

### NOTE

For you to be able to modify involvement entries at the Involvements screen for a record, you must have **Add** or **Modify** privilege for the primary table *and* **Modify** privilege for the involved table.

To delete an involvement entry at the Involvements screen for a record, you must have **Delete** or **Modify** privileges for the primary table *and* **Delete** or **Modify** privileges for the involved table.

Delete an involvements line only if either of the following is true:

- The current record was inappropriately associated with the involved record (for example, the vehicle was not actually associated with this incident)
- The primary record is invalid or no longer needed

For information on setting security for the Involvements table, see the *Security Setup and Maintenance Manual*.

## Involvement types: priorities

Involvements appear on the Involvements screen in order of importance, with “alert” involvements listed before any other involvements. “Alert” involvements, such as a Wanted Person involvement or any involvement for which **Warn** has been enabled, will be displayed with red text in the **Type** field.

You have the opportunity, when you prepare for software implementation, to decide the priority order for the Involvement types. Refer to the Database Preparation Forms provided for you. The Involvement Type form lists the Involvement types in default order and with default abbreviations.

If this order and these abbreviations suit your needs, make no changes to this form. Otherwise, write in the preferred abbreviation or number the types in the priority order you desire.

**CAUTION**

Never change the `syinvtyp` table after your agency goes Live.

## Avoiding Duplicate Record Entry

Duplicate Name records are a concern because involvements must be related to the correct name if users are to obtain complete information. To help ensure that users do not add a Names record that has already been entered, the software requires users to search the Names table before adding names. For this feature to be most effective, users must perform searches the correct way.

Even though duplicate records can be created for Names, Vehicle, and Property records, you can take measures to help avoid duplicate record entry.

### Searching for records

The most *inefficient* way to search for a name is to enter the complete first, middle, and last names. Unless the user enters the name exactly as it appears in the database, the software cannot find the name. Therefore, the less information entered for the search, the lower the chance for error.

When entering a name, a user should enter only the last name and the first initial of the first name for the search. “Wild card” characters can take the place of parts of the name that are left out. The entry might look like one of these:

Last: Reagan First: R\* Middle:         
Last: R\*g\*n First: R\* Middle:       

In the first example, the asterisk (\*) tells the software to find all records with a last name of Reagan *and* a first name beginning with R. The second example signals the software to find all last names that include an R followed by a G and an N, with anything in between these letters and with first names beginning with an R.

Using entries such as these, the user is more likely to find all possible names that might be correct. This search generates a list of names from which the user can easily select the correct record. It is unlikely that the software will miss the name when you use this type of search.

### Finding errors

Because of the variety of errors that users can make, auditing and corrections will always be necessary. One of the best ways to find errors is through the reports the software produces. Missing and incorrect entries are very obvious in this format. Be sure that users correct errors as they find them or report the errors to authorized persons for correction.

The best solution to the error problem is thorough training and close supervision of users.

## Using the Master Log

The software allows you to post user activity and error messages to the master log. The master log contains the 10,000 most recent entries. (Error messages account for two records each.) Records contain data such as the following:

| DATE     | TIME  | USERNAME | TTY    | PROGRAM | ACTIVITY CODE |
|----------|-------|----------|--------|---------|---------------|
| 10/25/90 | 10:34 | john     | ttyp00 | comdity | Error         |

Could not open ISAM files (error=104 table=0)

---

Date

---

The date the entry was made.

---

Time

---

The time the entry was made.

---

Username

---

The username of the person who caused the entry.

---

tty

---

The UNIX device name of the port to which the person was connected (usually ttyxxx).

---

Program

---

The program the person was running (or the executable).

---

Activity Code

---

Usually one of the following:

- Open—Started a Flex executable (for example, “hub”)
- Close—Terminated an executable normally
- Fail—Terminated an executable with a failure
- Use—Ran a Flex program (for example, names)
- Done—Exited a Flex program
- Abort—“Done” but non-0 return value, which seldom means anything
- Run—Spawned off a run level

- Error—Noteworthy error or problem detected

For Error entries (and the rare Warn and Note entries), the entry under the date/time/username will be up to 77 characters of the error message. The error message usually is identical to a message that appeared on the user's screen when the software made the entry to the master log. However, sometimes the message on the screen is more descriptive than the programmer-oriented message in the log.

## Viewing master log entries

You can view the master log by entering **mlv** at the shell. Enter the command using the following format:

```
mlv (-u user) (-t tty) (-p pgm) (-l) (-e) (-r)
```

For example:

```
mlv -u john -e
```

or

```
mlv -t tty04
```

The options (letters preceded by **-**) limit the output as follows.

- u** Limits the display to entries by the username you specify
- t** Limits the display to entries on the tty# you specify
- p** Limits the display to entries for the program name/executable you specify
- l** Shows the entries in long format in addition to the information displayed normally; it includes three fields of source code information (file, version, line) as well as any applicable error number
- e** Shows only error entries
- r** Shows the entries in reverse chronological order

If you do not specify any options with the **mlv** command, the software attempts to show entries for users currently on the software. Thus, you can determine what the users are actually doing. The software scans back only 24 hours, and the true status of users who have used the **RUN** feature might not be displayed.

## Viewing Modification History

The software contains maintenance screens for many of the data entry programs, for example, the Names, Law Incident, and Vehicle tables. These maintenance screens allow you to view modification history for any record in the table. Maintenance screens look exactly like the table screen, except that they contain additional fields.

For example, the maintenance screen for the Vehicle table appears as below:

The screenshot shows a software window titled "vehwho" with a subtitle "Vehicle w/ Who Added/Modified". The window has a menu bar (File, Edit, Search, Tools, Help) and a toolbar with icons for Exit, Search, Modify, Add, Clear, Delete, View, List, Total, Print, Back, Forward, Jadd, Jres, Jtbl, and a vertical ellipsis. Below the toolbar is a navigation bar with buttons for Vehicle, Inv, Ntwk, Orig, Use, and Files. The main content area is divided into four sections:

- Vehicle:** Fields include Vehicle Number, License Plate, License Type, State, Expires, VIN, Vehicle Type, Vehicle Year, Make, Model, Color, Doors, Value, and Characteristics. Each field has an associated "Add" and "Mod" (Last Modified) field.
- Owner:** Fields include Numbr, Last, DOB, Race, Sx, Tel, Fst, Adr, Cty, Mid, ST, and Zip. Each field has an associated "Add" and "Mod" (Last Modified) field.
- IBR/UCR:** Fields include IBR/UCR Agency, Officer, UCR Status, Local Status, Status Date, Local ID, Date Recov/Rovd, Area, Wrecker Service, Storage Location, and Date Released. Each field has an associated "Add" and "Mod" (Last Modified) field.
- Comments:** A large text area for comments and a "Last Modified" field.

At the bottom of the window, there is a status bar with the text "User: sds | Search for specific records" and a button labeled "OVR".

The vehicle modification history screen has the additional fields **Add**, **Mod**, and **Last modified**. Other maintenance screens have similar fields, which usually apply to the field just before them. For example, in the screen above, the **Last Modified** field tells when the **Comments** field was last modified.

The additional fields that appear on maintenance screens generally contain the time, date, and UNIX ID number of the person who last added/modified the field or record.

You cannot modify or add records at maintenance screens, but by searching on any combination of fields, you can compile various types of information. Some examples follow:

- View all records added/modified during a specified period.  
Search on the **When Added** (or **When Modified**) field, entering a date range.
- View all records added/modified by the user.  
Search on the Who portion of the **When Added** or **When Modified** field, entering the UNIX ID of the user in question. If you wish to bring up a list of total activity by a specific user, search first on **Who Added**, then click **Join** and search on **Who Modified**, using the same UNIX ID number both times. The software creates a selection set containing all records added or modified by the user indicated.

#### NOTE

You can make a list of UNIX ID numbers and the associated usernames two ways. At the User Privileges Maintenance table, perform a lookup at the **User ID/Group ID/0/Password** field to bring up a list of all UNIX IDs and the associated usernames. Bring up the password file in the operating system.

- Discover who last modified a specific record  
Enter search data for the record in question.

## Maintenance screens available

Maintenance screens are available for many of the data entry screens in the software. Below is a list of data entry screens, followed by the program name of the maintenance screen containing the When Added/Modified information.

| Data Enter Screen           | Maintenance Screen |
|-----------------------------|--------------------|
| Accident table (Traffic)    | accwho             |
| Arrest table                | arrwho             |
| Citation table (Traffic)    | citwho             |
| Civil Process table         | civilwho           |
| EMS Incident table          | emswho             |
| Field Interviews table      | fieldwho           |
| Fire Incident table         | firewho            |
| Fire Intelligence table     | frintwho           |
| Fire Field Interviews table | frfldwho           |



| Data Enter Screen       | Maintenance Screen |
|-------------------------|--------------------|
| Intelligence table      | intelwho           |
| Law Incident table      | lawwho             |
| Names table             | namewho            |
| Offense table           | offwho             |
| Property table          | propwho            |
| Vehicle table           | vehwho             |
| Wanted Person table     | wantwho            |
| Warning table (Traffic) | warnwho            |

## Auditing Report Data

Two reports are available to help you analyze report data. These reports help you find which fields a report is pulling information from and which reports use a particular field. This information can assist you in analyzing and fixing reports that might be producing incorrect results.

### NOTE

As of this writing, about 90% of all reports are eligible to be found using the reports discussed in this section. However, some older reports have not been converted to the newer report writing methods used by Spillman personnel (CTPERL) and therefore cannot be found. The reports that can be found include those with `dbopen` and `copen` statements in their programming. The reports that cannot be found are those written using SQL/PERL.

### Using the Report Information report

Use the Report Information report (`rptinfo`) to identify which tables/fields a report is pulling information from and which fields sort the data. This report is useful if you have problems with a report producing incorrect results; users might be entering data incorrectly into a field from which the report pulls information. Run this report to determine which fields to check for incorrect data.

At the `rptinfo` screen, be sure to enter the full report name, with format extension, in the **Report Name** field. For example, enter `rplwisr.r2` to find information on that particular format of the `rplwisr` report, or `rplwisr.r` to get information on all formats of the `rplwisr` report. If you enter just `rplw`, you get a very long printout with information on all reports that begin with `rplw`.

### Using the Report Field Search report

Use the Report Field Search report (`rptsrch`) to find the reports that use the field you specify. For example, if you want to find out which reports use the **Driver's License** field on the Names screen, enter `nmmain.dlnum` in the **Field Name selection** field on the `rptsrch` screen. You must use the full field name because the software checks your entry against the syschema and gives you an error message if the field name you enter is not valid. (There is no Lookup available for the **Field Name selection** field.) The report provides a list of reports that use the field you specify, including each report file's exact location in the directory structure.

### NOTE

Avoid running this report for a much-used field such as `nmmain.last` during peak software usage hours. A report of that size can take a while to run and bog down your software.

# Chapter 13

---

## *Support and Troubleshooting*

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---

## ***Introduction***

This chapter discusses common problems you might encounter as an SAA and how to solve them. It includes suggestions for performing preventive maintenance, diagnosing and solving problems, and reporting problems to Spillman Technical Services.

The following guidelines can help you prevent problems and more quickly solve those problems that do arise:

- Practice proper and regular system maintenance.
- Know your system. Be familiar with the software, hardware, and operating system manuals. Then, when problems arise, you often can solve them yourself.
- Your most important tool is information. When problems arise, write down exactly what you were doing and in which program. Also, write down any error messages that appear and note any circumstances that might affect the computer, such as lightning or extensive dust around the machine.
- When you need to call in a problem, have your information at hand. Follow the instructions under [“Reporting a Problem” on page 380](#).

## Preventive Maintenance

To avoid problems, be an informed SAA and know your software and hardware. When you perform your duties correctly and promptly, the software is an efficient tool. Suggestions for preventing problems follow:

- Use this manual as a reference and maintenance tool. With it, you can solve many problems yourself.
- Be familiar with the manuals for your hardware and operating system.
- Know how your hardware works and where connections should be.
- Maintain your hardware to avoid problems caused by dust, smoke, and heat.
- If electrical power in your area tends to fluctuate, you can have serious, recurring problems with your system. You might want to get an Uninterrupted Power Supply (UPS) to even out the flow of electricity to the computers. When shopping for a UPS, look for these features:
  - Type of protection offered (surge protection vs. line conditioning)
  - Battery life sufficient to maintain your system through a long power outage
  - Ease of battery replacement (preferably on site)
  - Cabling and software for proper system shutdown when the power goes out
- Check your hard disk space periodically to make sure you have adequate space. (A disk that is running out of space might cause problems before it runs out.) See [“Using Flex Utilities to Log User Activity” on page 268](#).
- Make sure your users are well trained and enter data correctly. Train users to enter the correct codes required for the UCR and NIBR. Refer to [Chapter 14, “UCR,” which begins on page 385](#), for a listing of code restrictions and other information on the UCR. Refer to the online Help for the NIBRS module for information on National Incident-Based Reporting.
- Maintain tight security to avoid problems with unauthorized access. Refer to the *Security Setup and Maintenance Manual*, for guidelines and instructions.
- Perform and verify backups regularly. Make sure that your backup media (tapes, diskettes) are good and stored correctly. You can find instructions for performing backups in [Chapter 10, “Backups,” which begins on page 227](#).

## Diagnosing and Solving Problems

Many problems can be diagnosed and solved without contacting Spillman Technical Services. Before calling in a problem, look it up in this section. Also, ask yourself these questions:

- Do you receive an error message with the problem?
- Is the software working as documented but not doing what *you* would like it to do? If you want to change the functionality of the software, [see “Requesting software enhancements” on page 383](#).
- Have you had power fluctuations, done anything differently with the system, or loaded anything? When you call in the problem, inform the support representative of any changes you have made.
- Can you duplicate the problem? Repeat the task to see whether the problem reoccurs. If it does not reoccur, try again. If the problem still does not reoccur, make a note of it. You probably do not need to call the problem in yet.

### CAUTION

Usually, repeating the task does not cause data loss. However, do not repeat the task if you think you are losing data.

- Is the problem linked to the hardware or the software? If the problem involves a computer or a printer, it is probably a hardware problem. If the problem occurs during backup, it also might be related to hardware.

### Problems with your system

If you cannot log on, or if your computer locks up, your system might be down. Before you call Spillman Technical Services, check the following:

- Is the entire system down? If your computer is locked up and other computers are locked up, the whole system might be down.
- Does any computer display an error message? Always write down any error messages you find.

If you determine that the problem is hardware related, contact your hardware manufacturer or maintenance company. If you have a hardware maintenance contract with Spillman Technologies, call Spillman Technical Services.

## Problems while running a backup

Use the following checklist to determine whether a backup problem is hardware related or software related. (For more information refer to [Chapter 10, “Backups,” which begins on page 227.](#))

- Is the tape drive turned on?
- Are all connections secure?
- Is the problem caused by your backup media? If the backup fails, try it again, using different media (tapes/diskettes).

- Is the tape drive working? If you have a tape backup, check the error and power light on the tape drive to make sure the drive is working.

If you have a tape drive, did the tape rewind correctly? Watch the screen during the first 30 seconds after you insert each diskette/tape. Any error messages will appear quickly.

- Do you have the security access required to perform backups? If you have never done backups before, you might not have the required access.
- If you are doing a system backup, are you logged on as root?
- Are you storing your backups correctly?

## Problems with printing

A printer's inability to print can be caused by either a software or a hardware problem. Before you call a printer problem into Spillman Technical Services, make the following checks:

- Print another report on that printer. If other reports print, the problem is probably with the software.
- Check the connections on the hardware.
- Swap the printer with an identical printer that works. If the first printer still does not work, the problem is the printer itself. If the second printer does not work on the first port, then the port is bad. Report a hardware problem.
- At any command line, type **sh** and press Enter. At the operating system prompt, enter the command to display printer information (Refer to your operating system manual for the correct command.). Check the following:

- The scheduler should be running, as indicated in the first line of the printer display. If the scheduler is not running, turn it on:
  1. At the operating system prompt, type **su** and press Enter to log on as a Super User.
  2. Enter the command to restart the scheduler. Refer to your operating system manual for instructions.
- Each printer on the system should be enabled, as indicated in the printer display. If any printer is listed as being disabled, enable it:
  1. At the operating system prompt, type **su** and press Enter to log on as a Super User.
  2. Enter the command to enable a printer. Refer to your operating system manual for instructions.
- Check the list of processes currently running by entering **ps** at the operating system prompt. If any processes are listed for the printer that is not functioning, kill them. Then, try to print on that printer again. For instructions on killing a print job, [see “Stopping a print job” on page 376](#).
- Log everyone off, turn off the questionable printer, shut down the system, and then bring the system up again. If the problem is caused by an operating system glitch, this procedure should fix it.

## Stopping a print job

To stop a print job, follow these steps:

1. Take the printer off line by pressing the ON-LINE button on the printer.
2. Log on as Super User by entering **su** at the operating system prompt.
3. Enter **sh** at any command line.
4. Display printer information, using the operating system command. (Refer to your operating system manual.)

The screen displays the current print jobs, in the following format:

```
printer name-tty number user name date time
```



For example, if the printer name is “dispatch” and you are logged on as root, the display might be:

```
dispatch-1244 root 234 Dec 11 09:25
```

5. Find the number of the printing job you wish to kill, and enter the command to kill it. (If you taped the appropriate tty number to each printer, you know which printer on the display to work with.) For example, to kill the sample print job, enter the following command:

```
cancel dispatch-1244
```

Repeat the command for each print process to be stopped.

6. Type **exit** and press Enter to return to the menu.
7. Put the printer back on line. Usually, about 24 lines of data are in the print buffer (temporary storage) when you enter the kill command. This data prints out before the printer stops. The rest of the print process has been canceled.

## Problems with software

If you determine that the problem involves the software, exit and restart the software. If the problem persists, follow the steps below before you call Spillman Technical Services.

- Document where in the software the problem occurred, including the menu, program name, program number on menu, full program name/description, record number and name, field and option. Record exactly what you were doing when the problem occurred.
- Write down any error messages that appear on the screen. Record precisely uppercase or lowercase letters, spaces, punctuation, and so on.

If the error message tells you to check the error log, check the error log by entering **sh** at any menu and then entering **mlv -e**. Write down the full error log record.

- Try to duplicate the problem if duplication will not cause data loss. If you cannot duplicate the problem and it has not happened before, assume that it is not a problem. If it has happened before, report when it happened and the exact steps required to reproduce the problem.

### NOTE

If duplication will cause loss of data, report the problem.

- Check the security access of the user. The user might not have access to the task or table. Refer to the *Security Setup and Maintenance Manual* for more information.
- Refer to the error section of your operating system manual if you get an error while using a maintenance program.

### ***Problems when printing reports***

If a problem occurs while printing a report, check the following:

- Check the error log to see whether an error occurred during printing.
- If the report is not printing all information that it should be printing, check the printer parameters you set.

Run the program again after resetting parameters. If you still have a problem, give us an example of a specific record that you think should be included in the report but is not included, and the parameters you set.

### ***Problems with your word processor***

If your word processor fails to work and Spillman Technical Services was not working on your system when the word processor failed, call your word processing company. Spillman Technologies is responsible for your word processor only if it is v.i. or the standard editor sent with the system.

## ***Restarting a computer***

There are many factors that might cause the Windows operating system to lock up. If so, consult your Windows documentation for troubleshooting.

If a particular computer has a hardware problem, consult your documentation for that computer or call the computer vendor's customer support.

## ***Reporting a Problem***

Before reporting a problem to Spillman Technical Services, attempt to solve it yourself by using the manuals and troubleshooting guidelines provided by Spillman Technologies and your hardware vendor. When unable to solve a problem, try to give Spillman Technical Services enough information to recreate the problem. Often, Spillman personnel must see the problem to analyze and fix it.

Before calling in a problem, be prepared to provide the following information, where applicable:

- Any error messages that appear. Report the error exactly as it appeared.
- The program the user was working with when the problem occurred. Include the program name, program description, menu, record number and name, as applicable.
- The task the user was performing when the problem occurred.
- The login of the user who encountered the problem.
- The tty numbers of the printers involved.
- The results of trying to duplicate the problem.
- The exact steps you took to fix the problem yourself.
- The information necessary for us to duplicate the problem.

## ***Calling in a problem***

When calling in a problem to Spillman Technical Services:

1. Tell the support person your agency and name and that you have a support problem to be entered.

If you are calling in additional information on a problem already reported to Spillman Technical Services, tell the support person the problem number.

2. Allow the support person time to go to a fresh screen and begin adding your problem into the support system.

It is important that we enter a record for every call, even if the call is simply a question, so please be patient while we enter the information.

3. If this is a new problem, the support person will give you a problem number. Write it down, along with the time and nature of the problem on the space provided on the Support Information

Worksheet. (Refer to your Recommended Forms packet for a master of the Support Information Worksheet. Make copies as needed.)

4. For a new problem, give the information in the appropriate outline. (Refer to the Support Information Worksheet in your Recommended Forms packet). You might need to “walk through” the program with the support person so that questions can be answered before giving the problem to a programmer. If you have had any power fluctuations, done anything different with the system, or loaded anything, give this information to the support person when you call in the problem.
5. Inform the support person of the severity of the problem. If the problem is critical (for example, your system is down and will not come back up), the support person will try to get you help while you’re on the line. Otherwise, your problem is put in the queue, and the programmers will help you in turn, as soon as possible.

#### NOTE

Please remember that we have developed our support system with one goal—to ensure that we provide our customers with timely and efficient support. What might seem like red tape actually allows you to receive better support more quickly.

With the information you provide, the support person can direct your problem to the programmer/maintenance person best able to help you. In addition, with this information in the computer, we can track each problem from the moment you call it in until the problem is solved.

Putting each call in the queue allows the programmer/maintenance person to concentrate on one problem at a time. Consequently, when your problem comes up, the programmer can pay full attention to it without interruption, providing the professional support that you require.

## ***Submitting a problem through the website***

To submit a problem to Spillman Technical Services through the Spillman Technologies website:

1. Open a Web browser, such as Microsoft Internet Explorer.
2. Go to the Spillman website at <http://www.spillman.com>.
3. Click the **My Spillman button**.

A dialog box appears.

4. Enter the user name and password that your Spillman Technical Services representative gave you.

5. Click **OK** or press Enter.

The **My Spillman** page appears.

6. On the left, click the **Support** link.

7. In the **Receive Support Now** area, click **Submit a Support Problem Online**.

8. Enter the appropriate information in the fields.

9. Click the **Submit** button.

After you submit the problem, Spillman Technical Services sends an e-mail message to the address you entered in the **Problem Management** page verifying that your information was received. A Spillman Technical Services representative calls you and helps you resolve the problem.

## ***Mailing or faxing a problem***

For your convenience, you might wish to mail or fax a support problem to us. Follow these steps:

1. Answer in detail the questions on the Support Information Worksheet. (Refer to your Recommended Forms packet for a master form. Make copies as needed.)
2. Fax or mail the Support Information Worksheet to Technical Services at Spillman Technologies. Keep a copy of this form for your own records.
3. When we receive the worksheet, our support person enters the problem in the computer and assigns it to the programmer/maintenance person best qualified to solve it.
4. The support person then calls you to give you the problem number. Write this number down on the space provided on your copy of the Support Information Worksheet.
5. The support person assigned to the problem will contact you with any questions and will keep you updated on his/her progress.

## Requesting software enhancements

Occasionally, you might want to make a change to a software module your agency uses. It is our goal to be responsive to the individual needs of each agency. Therefore, Spillman Technologies welcomes customer requests for enhancements to the software. Requests can be specific to your agency or area or general to the software. We appreciate your suggestions and take all possible measures to meet your enhancement needs.

If you have a suggestion for a general system enhancement, or if you find a system deficiency and can suggest how to resolve it, you can provide that information to Spillman Technologies through the My Spillman page of the Spillman Technologies website ([www.spillman.com](http://www.spillman.com)).

You can also present enhancement ideas at the annual Spillman Users Conference. Agencies share ideas at the conference and then vote on the ideas. If the majority of users agrees, a future software release will include the enhancement, which will become available to all agencies with a current support agreement.

To use the Spillman Software Enhancement Request Form:

1. Fill out the Spillman Software Enhancement Request form, detailing the changes you want made. (This form is available in your Recommended Forms Packet. Make copies as needed.)

This information helps us determine whether the change is possible, what impact it will have on the system, and how much programming time it will require. In addition, the form allows us to keep track of requests and changes made.

2. Fax or mail the form to the Product Management department at Spillman Technologies. Please do not call in enhancement requests, as we need to keep our support lines open for problems.
3. We will process the request and notify you of its status.





# Chapter 14

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***UCR***

Introduction 386

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## ***Introduction***

The setup information for the Uniform Crime Reporting (UCR) system can be found in the *Spillman Law Enforcement Records Management Manual*.

# Chapter 15

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## ***Spillman Application Server***

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## Introduction

The Spillman Application Server is a web-based application designed to allow Spillman Application Administrators (SAA) to manage your system from a single location.

The Spillman Application Server provides links to various web-based applications that your agency is running. The Spillman Application Server may include the following applications:

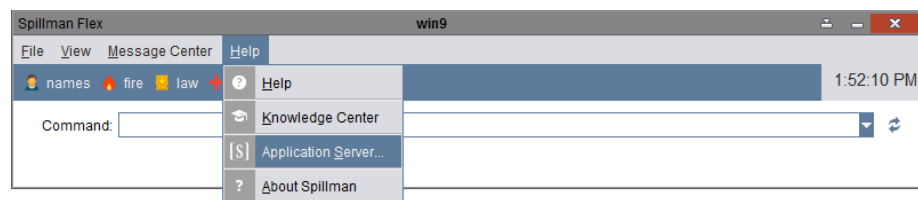
- C-tree Database Backup
- StateLink Manager
- InSight
- Quickest Route
- WebApp Manager
- Spillman Help

## Accessing the Spillman Application Server

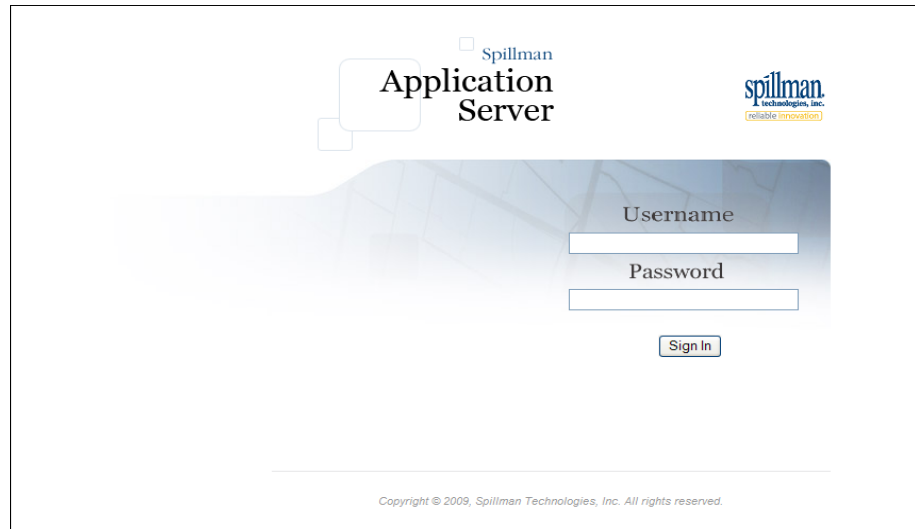
When you first open the Spillman Application Server, you must log on to the Spillman Application Server. In order to access the Spillman Application Manager, you must be a member of your operating system's manager or admin group.

To log in to the Spillman Application Server:

1. From the menu bar on any Classic screen, select **Help > Application Server**.

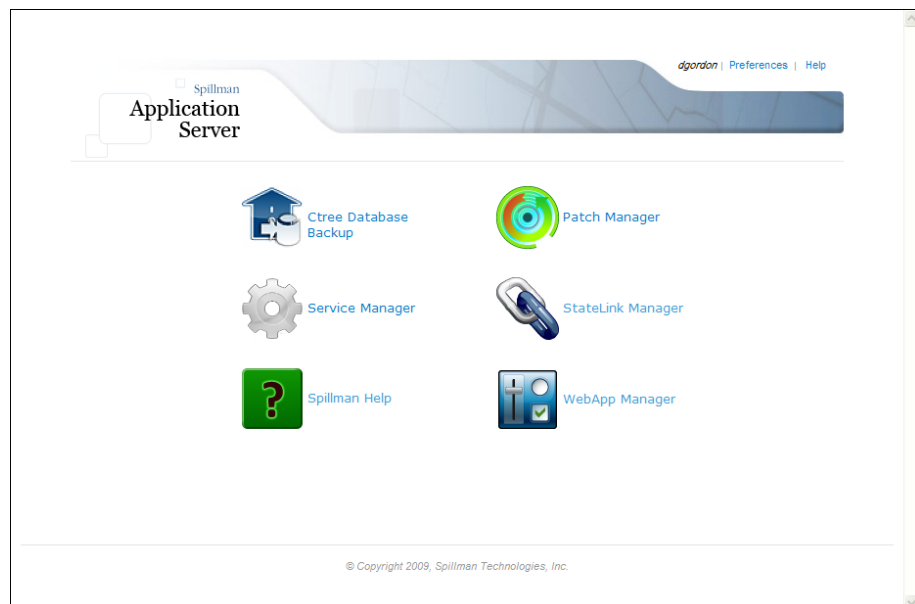


An internet browser opens and displays the Spillman Application Server Login screen.



2. Enter your user name and password in the appropriate fields.
3. Click the **Sign In** button.

The Spillman Application Server opens. The Spillman Application Server displays only the icons for applications that are currently loaded on your agency's server.

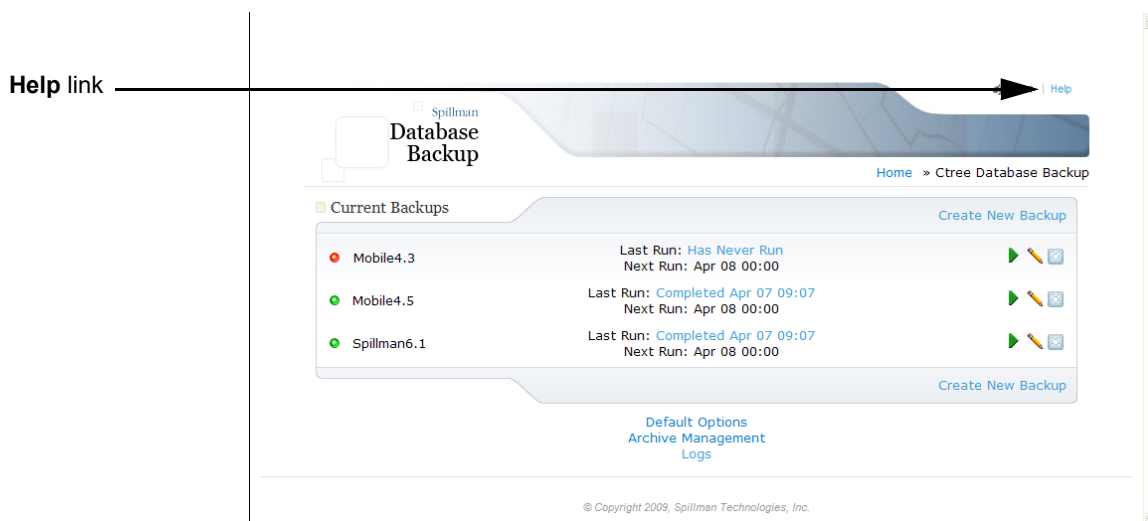


## NOTE

After initially logging in, the log in prompt might occur multiple times or not at all depending on the application being accessed. It is necessary to log in each time the prompt occurs.

## Accessing the Spillman Application Server Help

The Spillman Application Server contains its own Help system where you can access information about each web application. Each application within the Spillman Application Server contains a **Help** link in the upper-right corner. By clicking the **Help** link, the Spillman Application Server opens a Help screen with information specific to the page that you currently have open.

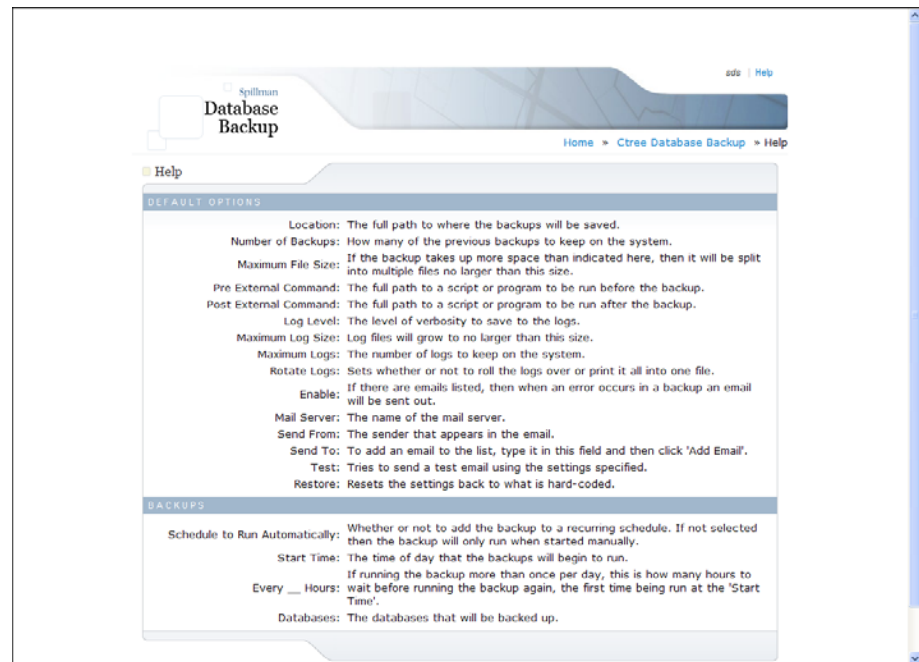


The Spillman Application Server Help system is not the same as the Spillman Help documentation. For information on accessing the Spillman Help documentation, see “Using the Spillman Help Application” on page 418.

To access the Spillman Application Server Help system:

1. With any screen in the Spillman Application Server open, click the **Help** link.

The Help page opens.

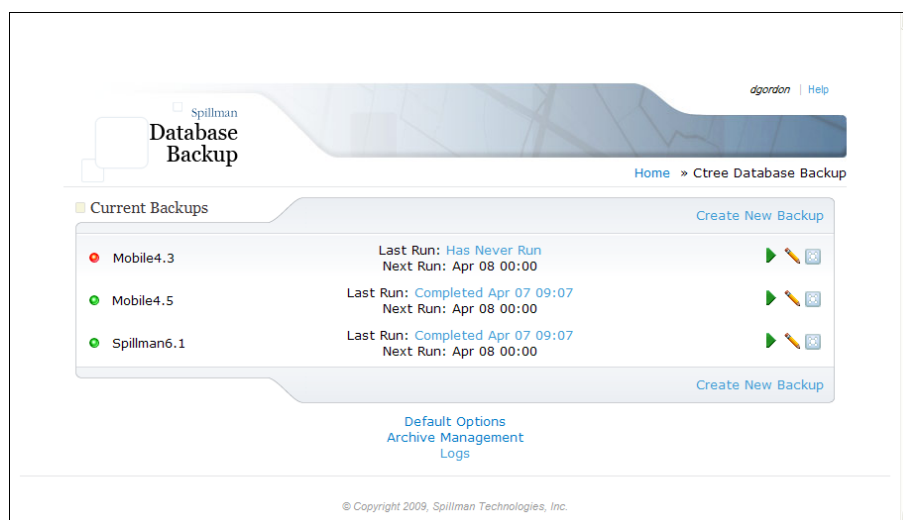


2. Click the **Back** button on your Internet browser to return to the previous page.

## Using the Ctree Database Backup Application

Spillman Technologies designed the Ctree Database Backup web-based application to simplify the process of backing up your databases. You can configure the settings of the Ctree Database Backup application to run automatically so that backups occur on a regular basis. The Ctree Database Backup application also allows you to perform manual backups, if necessary.




The Ctree Database Backup screen is the main screen of the Ctree Database Backup utility. You use the Ctree Database Backup screen to perform all of the functions of the Ctree Database Backup application.



From the Ctree Database Backup screen, you can view information about the backups you have set up for your system. The Ctree Database Backup screen displays a list of all current backups in the **Current Backups** area. If you have not set up any backups, the **Current Backups** area is empty. In addition, the **Current Backups** area also displays:

- A status icon indicating the status of the backup. Next to each backup record, the application displays a green or red icon to indicate the status of the backup. The application displays a green icon for backups that are currently running or that have completed successfully. The application displays a red icon for backups that have never been run or that have failed.
- The date and time the Ctree Database Backup application last ran the backup. (See “Viewing backup logs” on page 405.)
- The date and time the Ctree Database Backup application is scheduled to run the next automatic backup.



- The **Run** icon  to run a manual backup. See “Running a manual backup” on page 404.
- The **Edit** icon  to edit the backup. See “Editing a backup” on page 403.
- The **Delete** icon  to delete the backup. See “Removing a backup” on page 403.

In addition to viewing the current backups that are set up for your databases, you can also perform the following functions from the Ctree Database Backup screen:

- Create a new backup. See “Configuring an automatic database backup” on page 393.
- Set default options for new backups. See “Creating default options for backups” on page 400.
- Manage archived backups. See “Removing backup files” on page 402.
- Access backup logs. See “Viewing backup logs” on page 405.

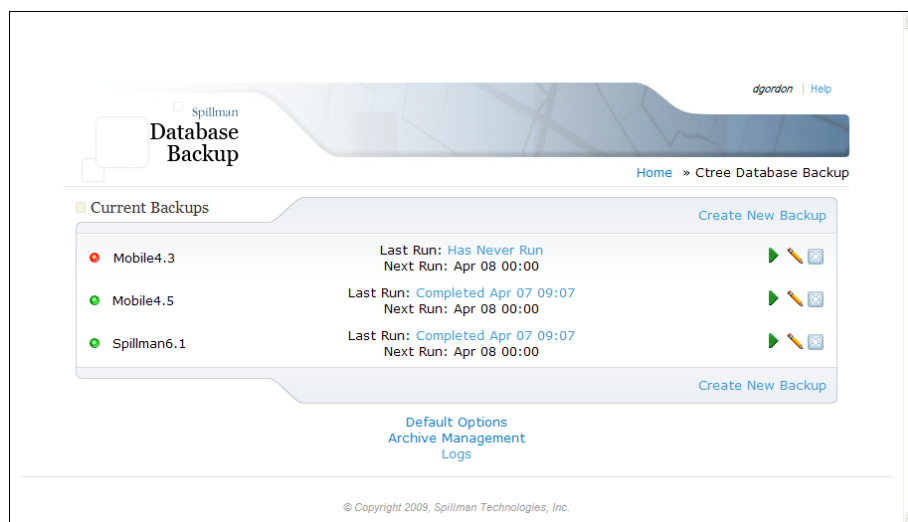
## ***Configuring an automatic database backup***

You can use the Ctree Database Backup application to set up your system backups for your databases. You can configure your database backups to run automatically at set times, to back up specific databases, and to send an e-mail to specific people if there are errors during the backup process. The Ctree Database Backup application allows you to set up multiple backups. You can set up as many backups as necessary.

To configure a backup to run automatically:

1. With the Spillman Application Server open, click the **Ctree Database Backup** icon.

The Ctree Database Backup screen opens.



2. Click **Create New Backup**.

The Backups screen opens.

Spillman Database Backup

Home » Ctree Database Backup » Backups

Backups Save

BACKUP SETTINGS

Name:

Location:

Number of Backups:

Maximum File Size (MB):

Pre External Command:

Post External Command:

RECURRENCE

Schedule to Run Automatically: ☒

Start Time (24-Hour):

Every  hour(s)

DATABASES

☐ mobile45-6-1

☐ mobile43-Head

☐ development-6-1

☐ mobile44-Head

☐ mobileHead-Head

☐ development-Head

☐ mobileHead-6-1

☐ mobile45-Head

LOGGING

Log Level:

Rotate Logs: ☒

Maximum Log Size (MB):

Maximum Logs:

EMAIL

Email Errors: ☐

Mail Server:

Send From:

Send To:  Add Email Test

Save

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3. In the **Backup Settings** area, enter the necessary information in the applicable fields. The **Name** and **Location** fields are required. For field descriptions, see [“Backup Settings” on page 396](#).
4. In the **Recurrence** area, select the **Select to Run Automatically** check box to have the application automatically perform the backup at set intervals. If you select the **Select to Run Automatically** check box, enter the necessary information in the applicable fields. For field descriptions, see [“Recurrence” on page 397](#).

5. In the **Databases** area, select the check box for each database that you want the backup to include. The backup includes only the databases selected. You must select at least one database.
6. In the **Logging** area, enter the necessary information in the applicable fields. For field descriptions, see [“Logging” on page 397](#).
7. In the **Email** area, enter the necessary information in the applicable fields. For field descriptions, see [“Email” on page 398](#).
8. Click **Save**.

The Ctree Database Backup application displays the new backup on the Ctree Database Backup screen. If you set the backup to run automatically, the application performs the backup at the scheduled time.

### Field descriptions for the Backups screen

Use the following field descriptions to help you complete the fields on the Backups screen.

#### Backup Settings

---

Name

---

Required field. Enter the name that you want to use to identify the backup. The name cannot include spaces. The name you enter appears on the Ctree Database Backup screen.

---

Location

---

Required field. Enter the path to where the backup will be saved. For example, enter **D: /backups**.

---

Number of Backups

---

Optional field. Designate the number of copies of this backup to store at one time. Once the application has reached the set number of stored backups for this backup, the application deletes the oldest backup and replaces it with a new backup. If you do not set a value in the **Number of Backups** field, the software does not place a limit on the number of backups stored.

---

Maximum File Size (MB)

---

Optional field. Designate the maximum file size, in megabytes (MB), that the backup can reach before the software splits the backup file into multiple files. If you do not enter a value in the **Maximum File Size** field, the software always creates the backup in one file, regardless of the size.

---

Pre External Command

---

Optional field. Enter the full path to a script or program to be run before the backup. Arguments to this command may follow the path to the command name.

---

Post External Command

---

Optional field. Enter the full path to a script or program to be run after the backup. Arguments to this command may follow the path to the command name.

## Recurrence

---

Schedule to Run Automatically check box

---

Select the check box to have this backup run automatically at set intervals. When the **Schedule to Run Automatically** check box is selected, the software performs the backup according to the schedule set by the **Start Time (24-Hour)** and **Every \_\_\_ hour(s)** fields. If you do not select the **Schedule to Run Automatically** check box, you must run the backup manually. To run a backup manually, see [“Running a manual backup” on page 404](#).

---

Start Time (24-Hour)

---

Designate the time, using a 24-hour time format, that you want the backup to start each day. The first backup of each day runs at this time. Each subsequent backup will run based off the value set in the **Every \_\_\_ hour(s)** field.

---

Every hour(s)

---

If want to run the backup more than once a day, designate how often, in hours, the application performs the backup. The application performs a backup at this interval (until midnight) after the initial backup, set in the **Start Time (24-Hour)** field. For example, if you enter **0800** in the **Start Time** field and **1** in the **Every \_\_\_ hour(s)** field, the application performs the first backup at 8:00 AM. The application then performs a backup each hour until midnight. Then, the application runs the next backup the next day at 8:00 AM.

## Logging

---

Log Level

---

The amount of information stored in the log. The available settings are:

- **Error:** The recommended level. The application stores messages pertaining to severe failures.
- **Informational:** The application stores details about the internal workings of the application.

- **Debug:** The application stores very detailed information. Logs containing Debug level information can be included with bug reports. Occasionally, Spillman Technical Services may request a log with Debug level information.

---

#### Rotate Logs check box

---

Select the check box to have the application place the log output into separate files once the file size is exceeded. You set the file size using the **Maximum Log Size** field. You can also set the maximum number of log files by the **Maximum Logs** field.

If you do not select the **Rotate Logs check box**, the application places all log output into one file. The log file continues to grow without a limit to the size.

---

#### Maximum Log Size (MB)

---

Set the maximum size, in megabytes (MB), to limit the file size before the application begins to place the log output into a new file. Log files do not grow larger than this size. Once a log file reaches the designated size, the application renames the file and starts a new log in its place.

---

#### Maximum Logs

---

Set the number of logs that the application keeps on the system. Once the designated number of log files is reached, the application deletes the oldest log file and creates a new log file.

## Email

---

#### Email Errors check box

---

Select the check box to have the application send a message to the designated e-mail addresses when an error occurs.

If you do not select the **Email Errors** check box, the application does not send a message to the designated e-mail addresses when an error occurs.

---

#### Mail Server

---

Designate the name of the mail server that the application uses to send the messages to the designated e-mail addresses set in the **Send To** field.

---

#### Send From

---

Designate the name that appears as the sender of the e-mail messages sent to the e-mail addresses set in the **Send To** field. The name does not need to correspond to an actual email account on the server.

---

Send To

---

Enter an e-mail address that you want the application to notify in case of an error during the backup process. Once you have entered the e-mail address, click the **Add Email** button. The screen displays the e-mail address below the **Send To** field. You can add additional e-mail addresses, as necessary. There is no limit to the number of e-mail addresses you can add.

You can click the **Test** button to have the application send a test message to all e-mail addresses entered. If you click the **Test** button and do not receive an email, check for the message in the Junk mail folder.

## Creating default options for backups

To speed up the process of creating backups, you can create default options that appear whenever you configure a new database backup. Using the Default Options screen, you can enter information that is common to all backups so that you enter the information only one time.

Spillman Database Backup

dgordon | Help

Home » Ctree Database Backup » Default Options

Default Options Save

**BACKUP SETTINGS**

Location:

Number of Backups:

Maximum File Size (MB):

Pre External Command:

Post External Command:

**DATABASES**

☐ mobile45-6-1

☐ mobile43-Head

☐ development-6-1

☐ mobile44-Head

☐ mobileHead-Head

☐ development-Head

☐ mobileHead-6-1

☐ mobile45-Head

**LOGGING**

Log Level:

Rotate Logs: ☒

Maximum Log Size (MB):

Maximum Logs:

**EMAIL**

Email Errors: ☐

Mail Server:

Send From:

Send To:  Add Email Test

**FACTORY DEFAULTS**

Restore

Save

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The Default Options screen contains the same fields as the Backups screen. Once you have created the default options, each database that you create already has the default information entered in the appropriate fields of the Backups screens.

To create default options for database backups:

1. With the Spillman Database Backup screen open, click **Default Options**.



The Default Options screen opens.

Spillman Database Backup

Home » Ctree Database Backup » Default Options

Default Options Save

**BACKUP SETTINGS**

Location:

Number of Backups:

Maximum File Size (MB):

Pre External Command:

Post External Command:

**DATABASES**

☐ mobile45-6-1

☐ mobile43-Head

☐ development-6-1

☐ mobile44-Head

☐ mobileHead-Head

☐ development-Head

☐ mobileHead-6-1

☐ mobile45-Head

**LOGGING**

Log Level:

Rotate Logs: ☒

Maximum Log Size (MB):

Maximum Logs:

**EMAIL**

Email Errors: ☐

Mail Server:

Send From:

Send To:  Add Email Test

**FACTORY DEFAULTS**

Restore

Save

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2. Enter information in the appropriate fields, as necessary. For field information, see [“Field descriptions for the Backups screen”](#) on page 396. You can enter information in as many fields as you would like. If you do not enter information in a field, the field will be empty when you configure a new backup.

#### NOTE

If you want to restore the original default settings, click the **Restore** button. The software replaces any changes that you have made to the settings and restores the original settings. Once you have clicked the **Restore** button, you do not need to click the **Save** button.

### 3. Click **Save**.

Once you have created your default options, the application automatically enters the default options when you click **Create New Backup**.

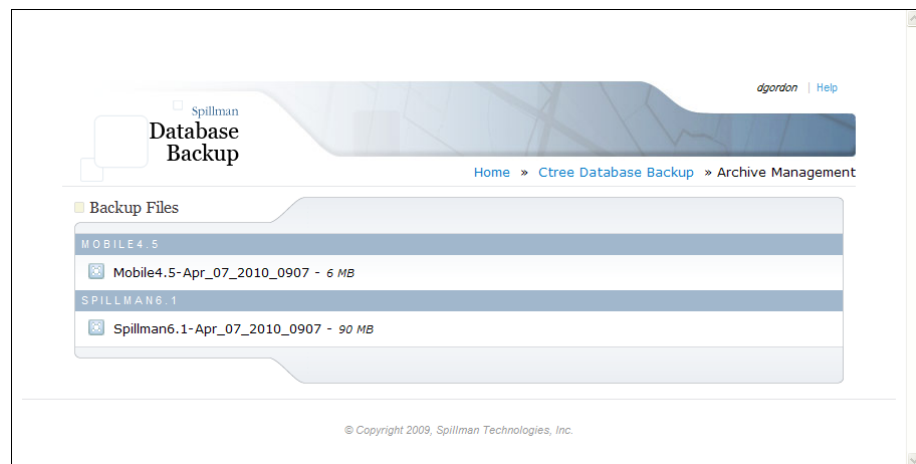
## Removing backup files


The Spillman Database Backup application allows you to manually remove backup files, as necessary. Use the Archive Management screen to select and remove backup files.

To remove a backup file:

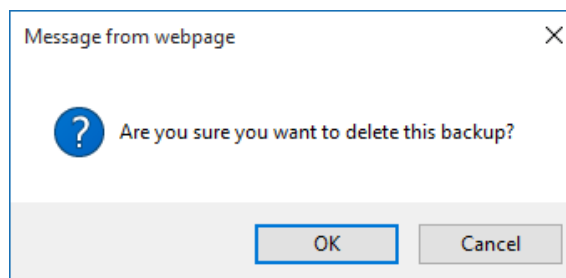
1. With the Spillman Database Backup screen open, click **Archive Management**.

The Archive Management screen opens. The application displays the files that have been created for each backup.



2. Select the file that you want to delete and click the **Delete** icon .

The application displays the following prompt.




3. Click **OK**.

The application deletes the backup file. You can repeat the process for each backup file that you want to remove.

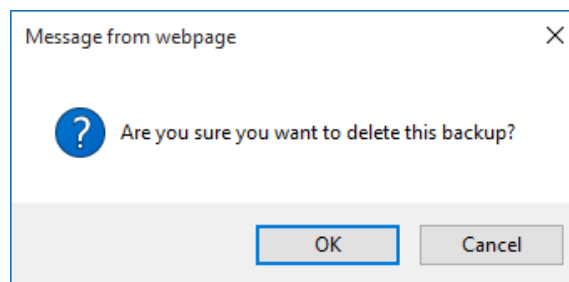
## Removing a backup

The Ctree Database Backup application allows you to manually remove a backup, as necessary. When you delete a backup, the application also removes any backup files or logs associated with the backup.

To remove a backup:

1. With the Ctree Database Backup screen open, select the backup that you want to remove and click the **Delete** icon .

The application displays the following prompt.




2. Click **OK**.

The application deletes the backup and any associated backup files and logs. You can repeat the process for each backup that you want to remove.

## Editing a backup

The Spillman Database Backup application allows you to edit the settings of previously created backups, as necessary. When you edit the settings of a backup, the changes affect future backup files only. Previously created backup files are not changed.

To edit a backup:

1. With the Spillman Database Backup screen open, select the backup that you want to change and click the **Edit** icon .

The Backups screen appears.

2. Make the necessary changes in the appropriate fields.

3. Click **Save**.

The application saves the changes. The application applies the new default information to all future backups.

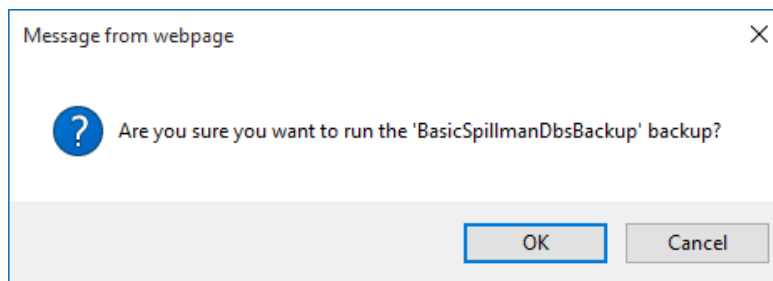
## Running a manual backup

The Spillman Database Backup application allows you manually run a backup instead of waiting for a scheduled automatic backup. You can also manually run a backup that you have set up to not run automatically.

To manually run a backup:

1. With the Spillman Database Backup screen open, select the backup that you want to manually start and click the **Run** icon ►.

The application displays a dialog box similar to the following.



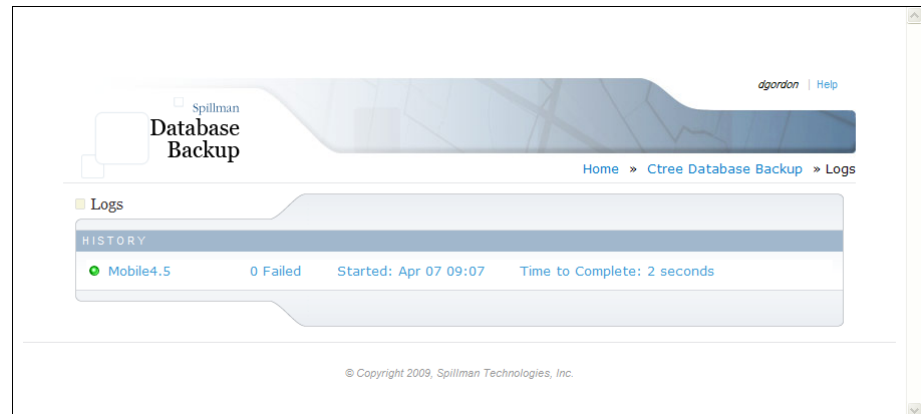
2. Click **Yes**.

The software runs the backup.

Running a manual backup does not affect the automatic backup schedule. When you run a manual backup, the application runs the next scheduled automatic backup at the set time.

## Viewing backup logs

The Spillman Database Backup application allows you to access the log files for the backups. The Logs screen displays the log information for each backup that the application runs.



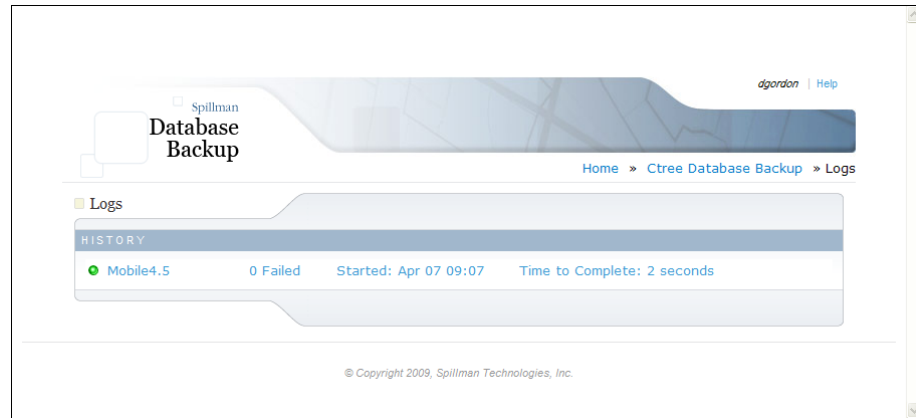
The Logs screen displays the following:

- A green or red icon to indicate the status of the backup. The application displays a green icon for backups that are currently running or that have completed successfully. The application displays a red icon for backups that have never been run or that have failed.
- The number of times the backup has failed.
- The time that the backup started.
- The amount of time the application used to perform the backup.

To access the backup logs:

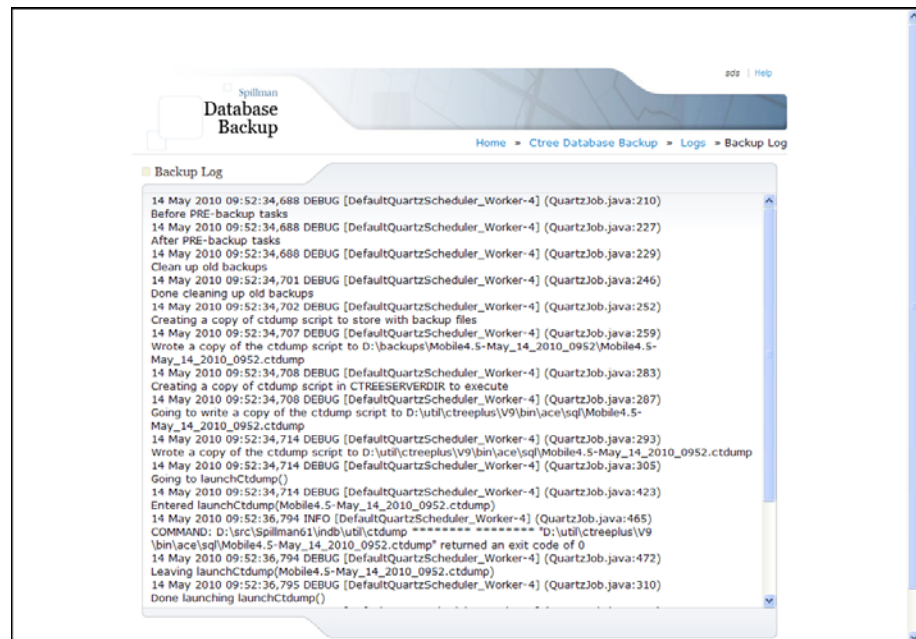
1. With the Spillman Database Backup screen open, select the backup for which you want to access the log files and click the **Last Run** link.

The Logs screen appears.



2. To expand the log information, click the desired log.
3. With the log information expanded, click on **Click Here For More Detail** to view even more detailed log information.

The Backup Log screen appears.



#### NOTE

You can also access log information by clicking **Log** on the Current Backups screen. The application displays the logs organized by backup. To expand the log view, click the name of the backup. The application displays a green icon for backups that are currently running or that have completed successfully. The application displays a red icon for backups that have never been run or that have failed. For backups that have failed, you can click the error message to view a detailed log.

## Using the Patch Manager Application

The Patch Manager application is a tool that allows you to manage downloading and running patches. Spillman Technical Services maintains the patches that are available to your agency.

The Patch Manager application displays the following information:

- Your current version of the software.
- Patches that your agency has downloaded.
- Patches that are available for your agency to download.

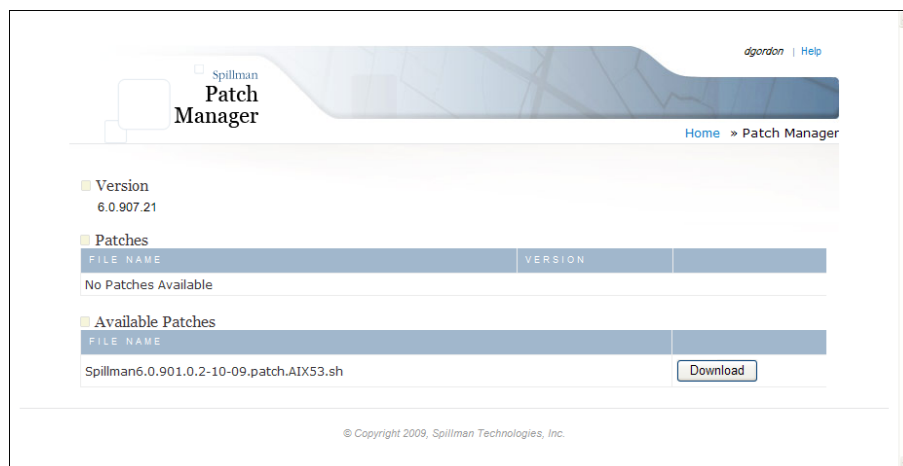
### Downloading an available patch

The Patch Manager application automatically checks for new patches that are available for your agency. The application displays the new patches in the **Available Patches** area of the Patch Manager screen. The application displays the **Download** button next to new patches.

To download a new patch:

1. With the Spillman Application Server open, click the **Patch Manager** icon.

The Patch Manager screen opens.



2. In the **Available Patches** area, select the desired patch.
3. Click the **Download** button.

The application downloads the patch. The application first attempts to download the patch to your server. If the download is



unsuccessful, the application prompts you to save the patch to a specific location on your local computer.

#### NOTE

If the patch download is unsuccessful and you save the patch to your local computer, it is necessary for you to use the Patch Manager to manually upload or transfer the patch file to your agency's server.

- Once you have successfully downloaded the patch, the Patch Manager displays the new patch in the **Patches** area of the Patch Manager screen.

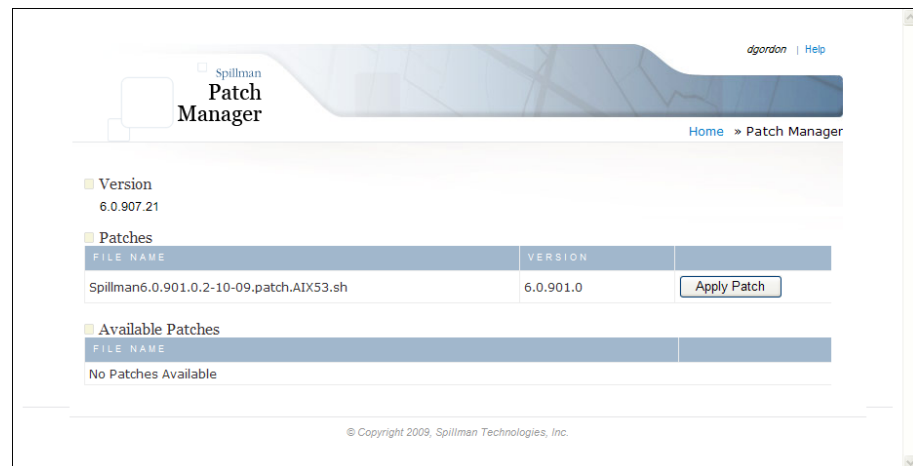
## Applying a patch

The Patch Manager application displays all patches that your agency has downloaded or has manually uploaded to your agency's server. If your agency has not applied the patch to your server, the application displays the **Apply Patch** button next to the patch.

To apply a patch:

- With the Spillman Application Server open, click the **Patch Manager** icon.

The Patch Manager screen opens.



- Check for available patches, if necessary. For more information, see [“Downloading an available patch” on page 408](#).
- In the **Patches** area, select the desired patch to apply.

4. Click the **Apply Patch** button. The application displays the **Apply Patch** button only for patches that your agency has not yet applied.

The application applies the patch to your server and updates your version of the software.

### ***Backing out of a patch***

After you have applied a patch, if the patch has problems or if you do not want to use the patch, you must contact Spillman Technical Services .

## Setting Up the StateLink Manager

For information about setting up the StateLink Manager, see the *StateLink Manual*.

## Setting up a Link to Your InSight Server

You can use the Spillman Application Server to set an external link to your agency's server that is running Insight.

To set the path to the Insight server:

1. With the Spillman Application Server open, click the **Preferences** link.

The System Preferences screen opens.

2. In the **Insight URL** field, enter the path to your agency's server that is running Insight. For example, enter **http://insight:8200**.

### NOTE

You can use the System Preferences screen to also set up a link to your agency's server that is running Quickest Route. See ["Setting up a Link to Your Quickest Route Server"](#) on page 413.

3. Click **Save**.

The **Insight** icon appears on the Spillman Application Server Home screen. You can use the **Insight** icon as a link to access your agency's Insight server.

### NOTE

The **Insight** icon appears on the Spillman Application Server Home screen once you have entered information in the **Insight URL** field on the System Preferences screen. The icon appears even if the path entered is not a valid path to a server.

## Setting up a Link to Your Quickest Route Server

You can use the Spillman Application Server to set an external link to your agency's server that is running Quickest Route.

To set the path to the Quickest Route server:

1. With the Spillman Application Server open, click the **Preferences** link.

The System Preferences screen opens.

The screenshot shows the 'System Preferences' window of the Spillman Application Server. The window has a title bar with 'Spillman Application Server' and a breadcrumb trail 'Home > System Preferences'. Below the title bar, there is a section titled 'External Links' with a checkbox. Under this section, there are two labels: 'InSight' and 'Quickest Route'. Each label has a corresponding 'URL:' text and an empty text input field. At the bottom of the 'External Links' section, there are 'Save' and 'Cancel' buttons. The footer of the window contains the copyright notice: '© Copyright 2009, Spillman Technologies, Inc.'

2. In the **Quickest Route URL** field, enter the path to your agency's server that is running Quickest Route. For example, enter a path similar to **http://quickestroute:8200**.

### NOTE

You can use the System Preferences screen to also set up a link to your agency's server that is running Insight. See "Setting up a Link to Your InSight Server" on page 412.

3. Click **Save**.

## 15 Spillman Application Server

### *Setting up a Link to Your Quickest Route Server*

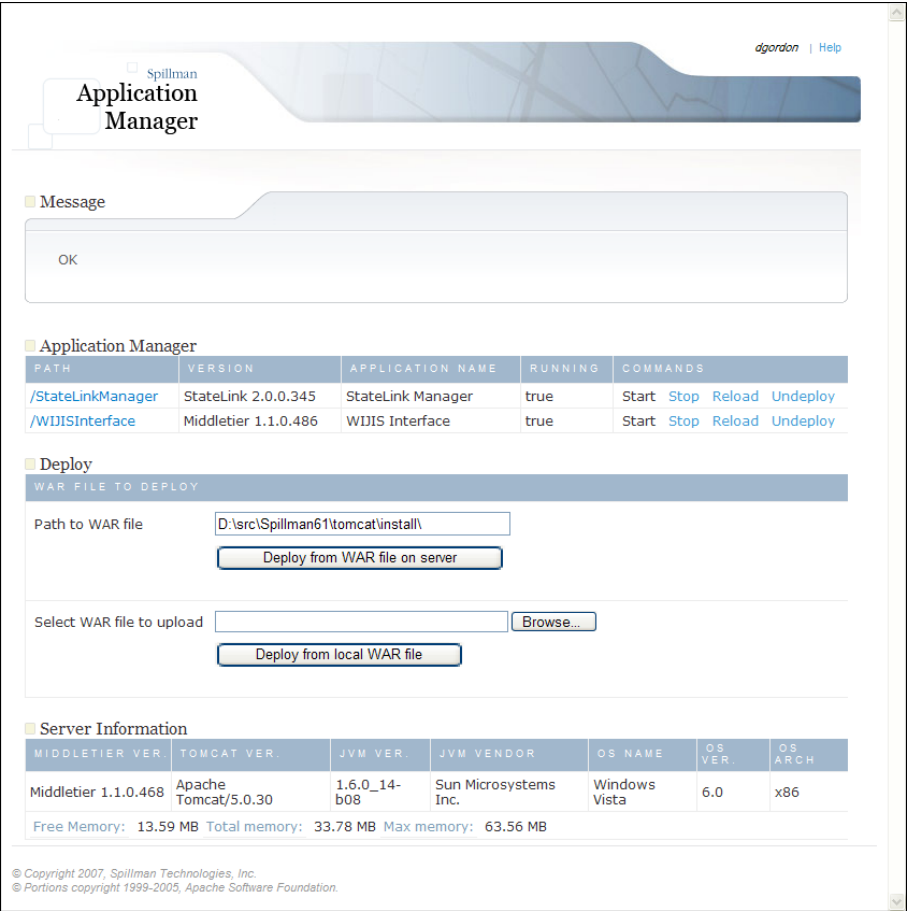
The **Quickest Route** icon appears on the Spillman Application Server Home screen. You can use the **Quickest Route** icon as a link to access your agency's Quickest Route server.

#### **NOTE**

The **Quickest Route** icon appears on the Spillman Application Server Home screen once you have entered information in the **Quickest Route URL** field on the System Preferences screen. The icon appears even if the path entered is not a valid path to a server.

# Using the WebApp Manager Application

The WebApp Manager application gives you the ability to manage your web applications without needing to shut down and restart Tomcat.



The WebApp Manager is divided into several sections to help maintain the applications on your agency’s server. The WebApp Manager includes:

## Message

The **Message** area displays information about the success or failure of the last web application manager command that you ran. If the last command was successful, the application manager displays OK. It may also be followed by a success message. If the last command failed, the application manager displays **FAIL** followed by an error message.

## Application Manager

The Application Manager section displays all WAR files that have been deployed on your agency's server. You can click on the application link to launch the web interface for the application. For each application, you can also:

- **Start:** Begin a specified application that has been stopped.
- **Stop:** Stop a specified application that is running and make it unavailable. The application remains deployed.
- **Reload:** Stop and then restart the application.
- **Undeploy:** Stop and remove the application from the server. The **Undeploy** command deletes the contents of the web application directory and WAR field. If you want to take an application out of service only, you should use the **Stop** command.

## Deploy

You can deploy a WAR file that is located on a server or on your local computer or network.

To deploy a WAR file from a server:

1. With the Spillman Application Server open, click the **WebApp Manager** icon.
2. In the **Path to WAR file** field, enter the path of the WAR file on the server.
3. Click the **Deploy from WAR file on server** button.

The WebApp Manager displays the new application under the **Application Manager** section. The Spillman Application Server also displays an icon for the application on the Spillman Application Server Home screen.

To deploy a WAR file from the local machine or network:

1. With the Spillman Application Server open, click the **WebApp Manager** icon.
2. In the **Select WAR file to upload** field, do one of the following:
  - Enter the path of the WAR file on your local machine.
  - Click the **Browse** button to select a file.
3. Click the **Deploy from local WAR file** button.

The WebApp Manager displays the new application under the **Application Manager** section. The Spillman Application Server also displays an icon for the application on the Spillman Application Server Home screen.



### **Server Information**

The **Server Information** area displays information about the server. For example it displays information about the Middletier version, the Tomcat version, the operating system of the server, and the Java Virtual Machine (JVM) in which Tomcat is running.

## Using the Spillman Help Application

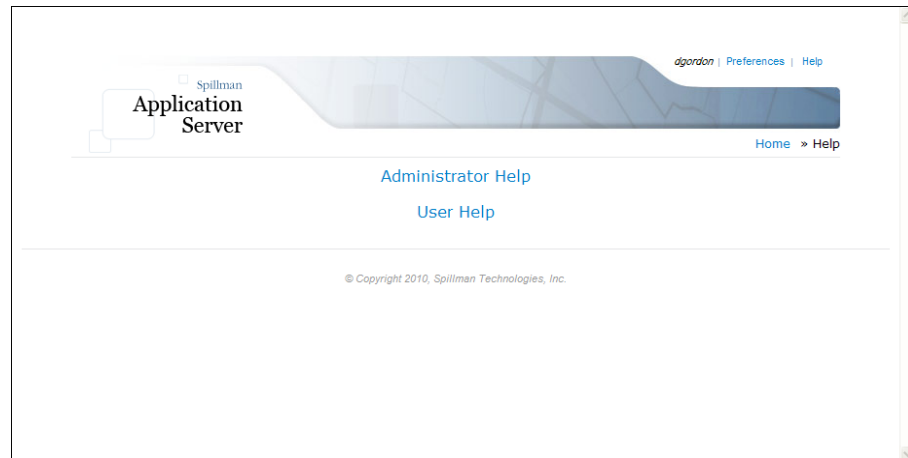
The Spillman Application Server provides a web application tool to access the Spillman Help. You can add to the help system documents that include your agency's own policies and procedures.

The Spillman Help web application is divided into Administrator Help and User Help.

To access Help:

1. With the Spillman Application Server open, click the **Spillman Help** icon.

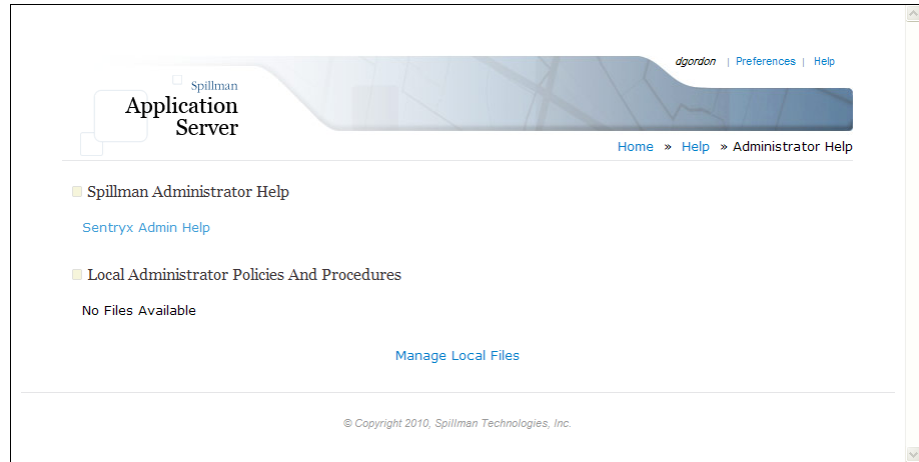
The Help screen opens.



2. Do one of the following:
  - To open the Administrator Help system, click **Administrator Help**.
  - To open the User Help system, click **User Help**.

## Accessing the Administrator Help system

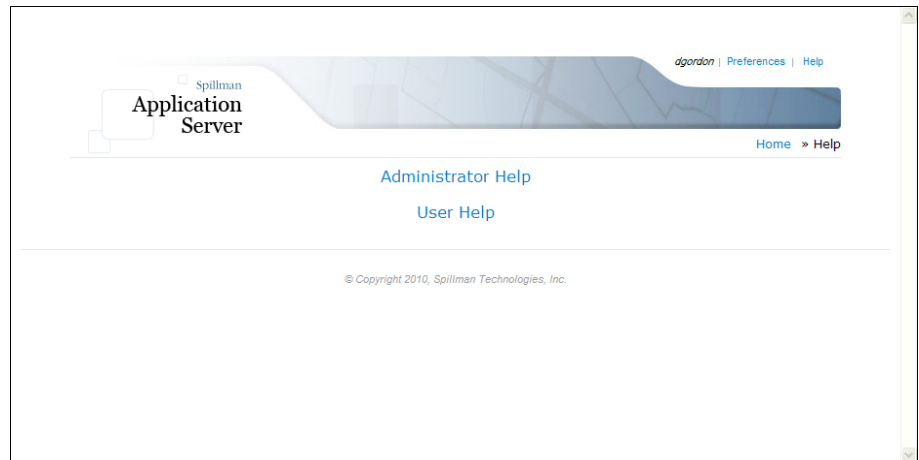
The Spillman Help web interface contains the Help files that are provided for administrators. You can also add your agency's own files. The help files located in the Administrator section are accessible only to administrators.



To access the Administrator Help system:

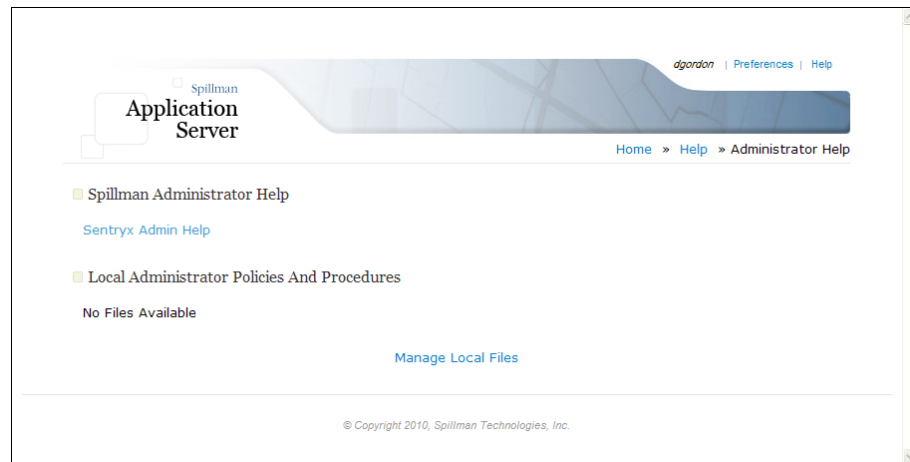
1. With the Spillman Application Server screen open, click the **Spillman Help** icon.

The Help screen opens.



2. Click the **Administrator Help** link.

The Administrator Help screen opens.



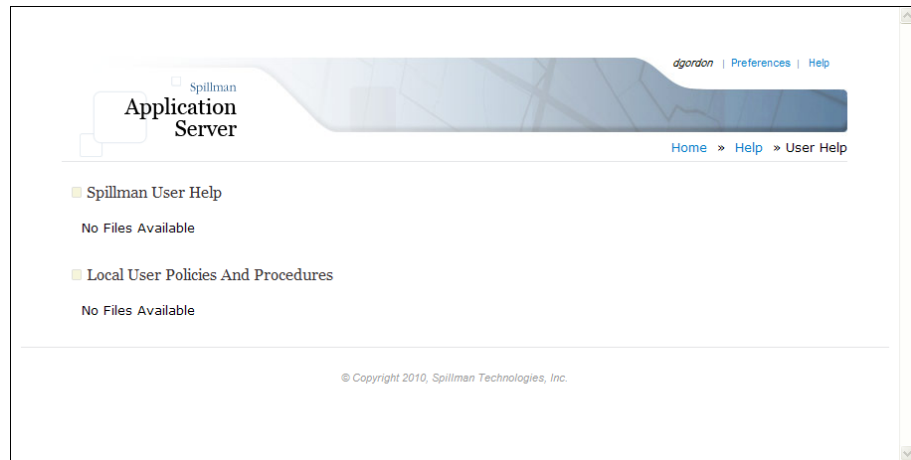
Under the **Spillman Administrator Help** heading, the Administrator Help screen displays the Administrator Help files. Under the **Local Administrator Policies and Procedures** heading, the Administrator Help displays the files that your agency has added to the system.

3. To access a Help file, click the file name.

The Help application opens the selected Help file.

## Accessing the User Help system

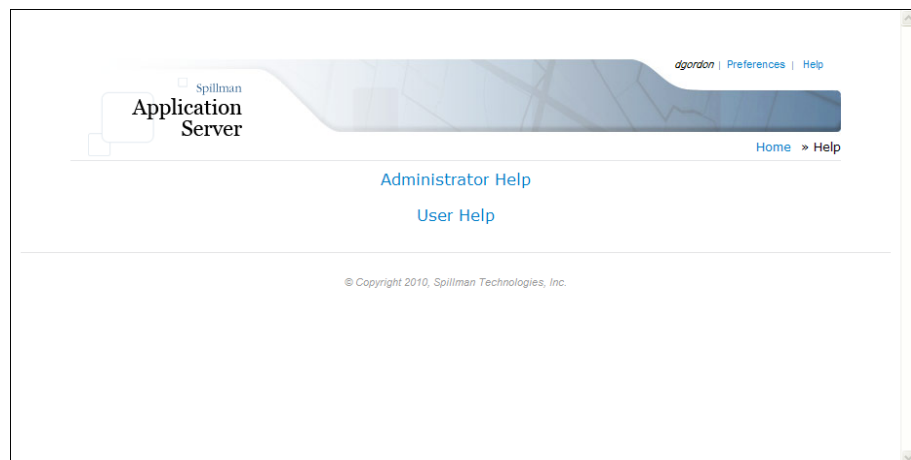
The Spillman Help web interface contains the Help files that are provided for end-users. All users who have access to the Spillman Application Server can access the User Help system. Administrators can add to the Help system additional files specific to your agency. For more information, see [“Adding documents to the Help application”](#) on page 422.



To access the User Help system:

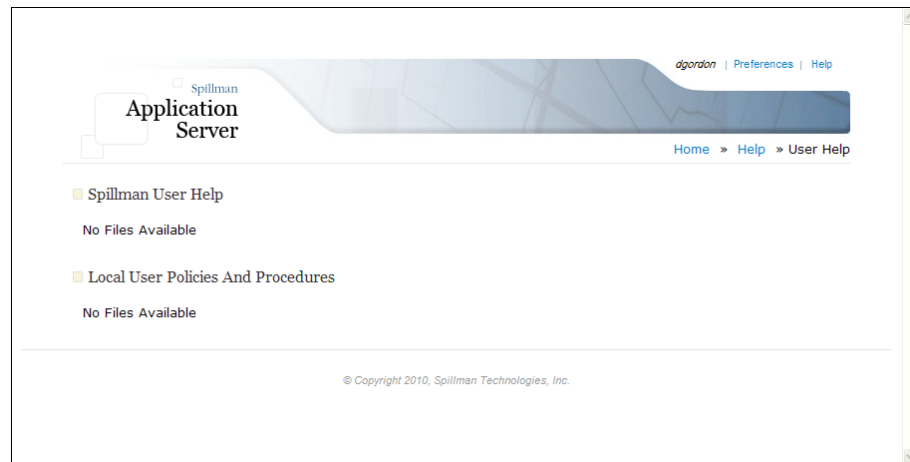
1. With the Spillman Application Server screen open, click the **Spillman Help** icon.

The Help screen opens.



2. Click the **User Help** link.

The User Help screen opens.



Under the **Spillman User Help** heading, the User Help screen displays the User Help files . Under the **Local User Policies and Procedures** heading, the User Help displays the files that your agency has added to the system.

3. To access a Help file, click the file name.

The Help application opens the selected Help file.

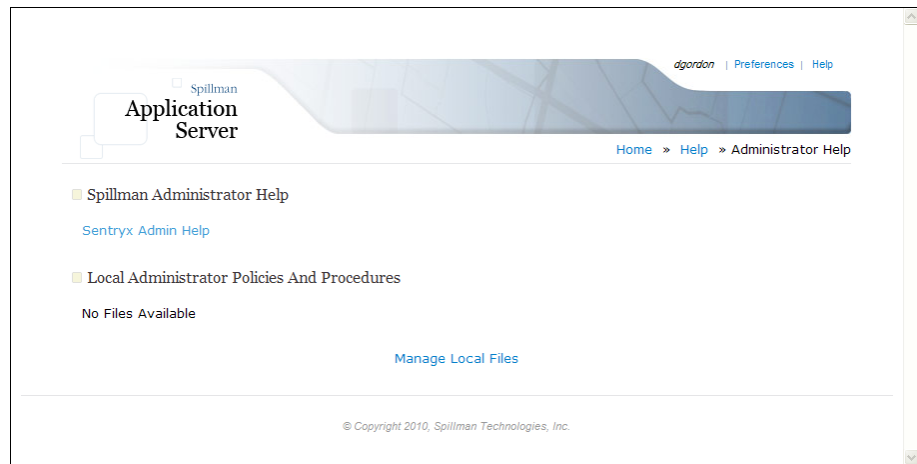
## ***Adding documents to the Help application***

You can add your agency's own files to the local Help application. You are able to specify files for administrators or users. Only users with the proper permissions are able to access the administrator help files.

To add local files to the Help application:

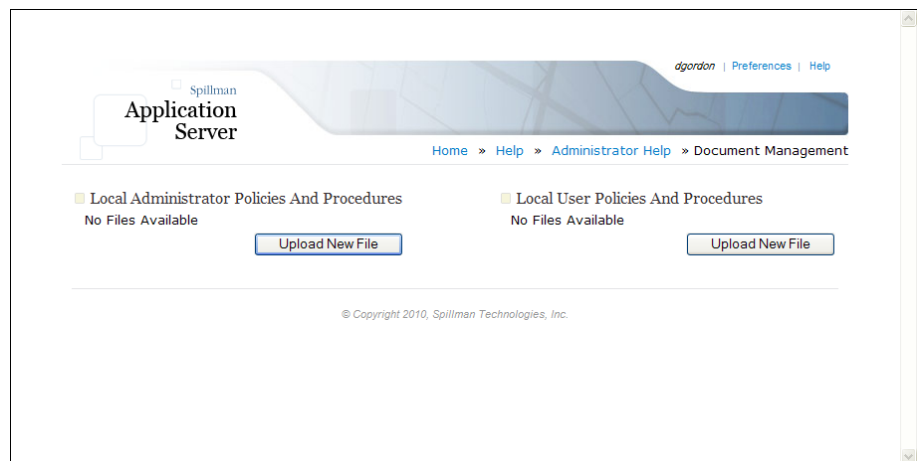
1. With the Help screen open, click the **Administrator Help** link.

The Administrator Help screen opens.



2. Click the **Manage Local Files** link.

The Document Management screen opens.



3. Do one of the following:

- To upload a new administrator file, click the **Upload New File** button under the **Local Admin Policies and Procedures** area.
- To upload a new user file, click the **Upload New File** button under the **Local User Policies and Procedures** area.

The Add File screen opens. The following example displays the Add File screen for adding an administrator file.

4. Click the **Browse** button and select the file to upload.
5. In the **Description** field, enter a brief description of the file. The description that you enter is used to identify the file on the Document Manager screen.
6. Click **Save**.

The Help application uploads the selected file to the Help application. The new file is accessible from either the Administrator Help or User Help screen.

## Modifying a help file

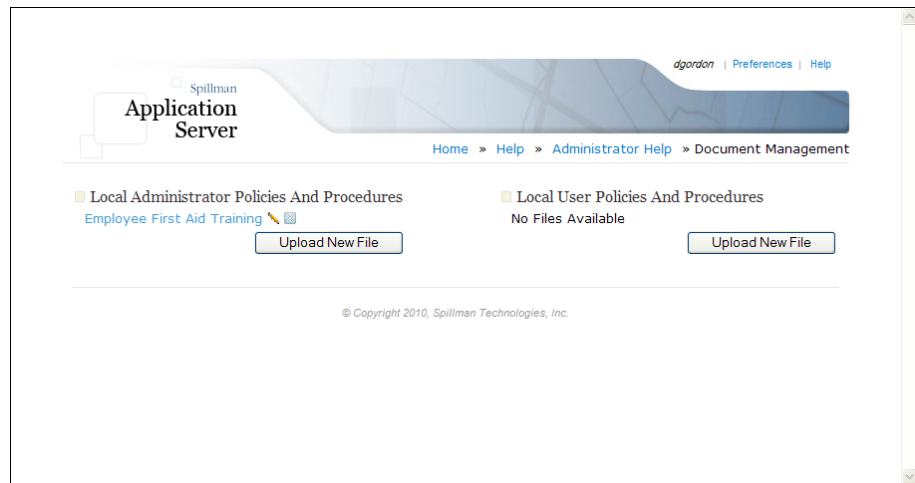
If necessary, administrators can modify the name of a Help file in your agency's Local Policies and Procedures section by changing the description of the Help file.


To rename a Help file:

1. With the Spillman Help screen open, click **Administrator Help**.  
The Administrator Help screen opens.
2. Click the **Manage Local Files** link.

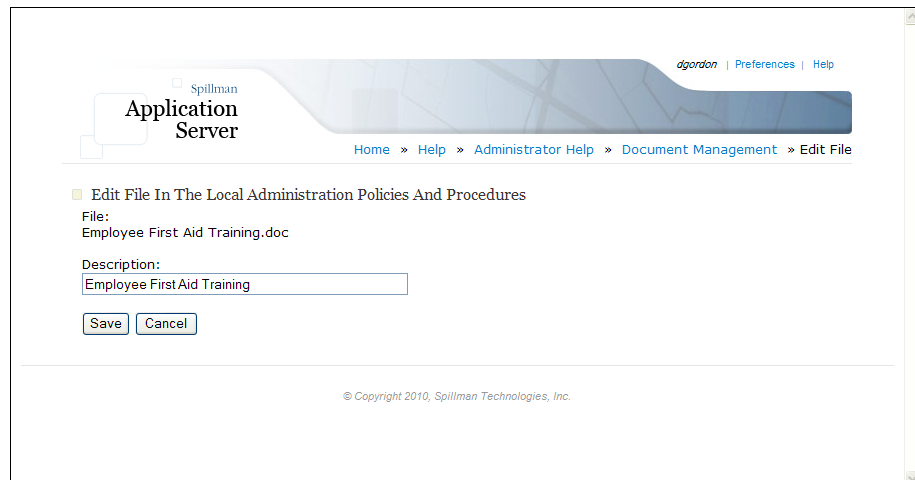


The Document Management screen opens.



3. Select the file that you want to rename, and click the **Edit** icon .

The Edit File screen opens.



4. In the **Description** field, make the necessary changes to the file name.
5. Click **Save**.

The Help application saves the changes to the Help file and the new description appears on the Administrator Help or User Help screen.

### Modifying the content of a Help file

If you need to make changes to the information in a Help file located in your agency's Local Policies and Procedures section, you must make the changes in the original document and then add the file to the Help application.

To modify the content of a Help file:

1. Make the changes to the original document and save it.
2. Remove the current Help file from the Help application. For more information, see [“Deleting a Help file” on page 426](#).
3. Add the new Help file to the Help application. For more information, see [“Adding documents to the Help application” on page 422](#).

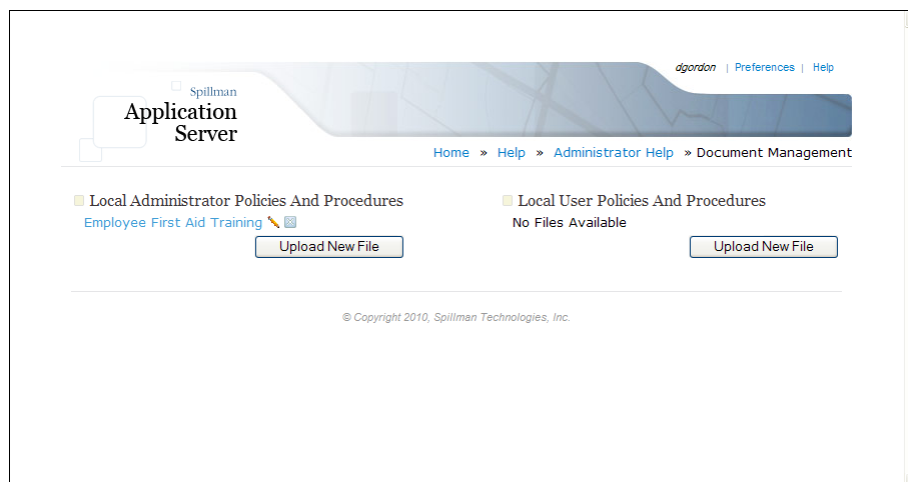
### Deleting a Help file


Administrators can delete Help files that have been added to your agency's Local Policies and Procedures section. Once a file has been deleted, administrators and users cannot access the Help file from the Help application.

To delete a Help file:

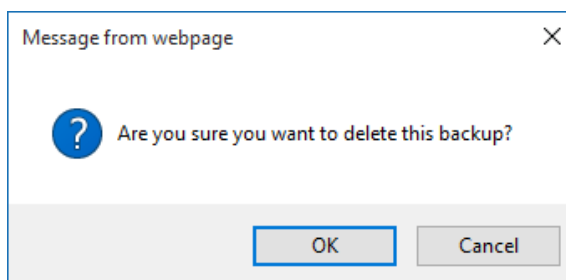
1. With the Spillman Help screen open, click **Administrator Help**.  
The Administrator Help screen opens.
2. Click the **Manage Local Files** link.

The Document Management screen opens.



3. Select the file that you want to delete, and click the **Delete** icon .

The software displays the following prompt:



4. Click **OK**.

The Spillman Application Server deletes the Help file from the Help system.



# Chapter 16

---

## ***CJIS Compliance Setup***

|                                            |     |
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## Overview

The CJIS compliance features in the software provide agencies with the tools necessary to maintain compliance standards as set forth in the Federal Bureau of Investigation's (FBI) Criminal Justice Information Services (CJIS) Security Policy, v5.3.

### FBI CJIS Security Policy

The CJIS Security Policy outlines a minimum set of security requirements that Criminal Justice Agencies (CJA) and Noncriminal Justice Agencies (NCJA) must meet to access to FBI CJIS Division systems and information, as well as to protect and safeguard Criminal Justice Information (CJI). This minimum standard ensures continuity of information protection, from creation through dissemination, whether at rest or in transit. In essence, the policy provides the appropriate controls to protect CJI.

The CJIS Security Policy integrates Presidential directives, Federal laws, FBI directives, and the criminal justice community's Advisory Policy Board (APB) decisions, along with nationally recognized guidance from the National Institute of Standards and Technology (NIST) and the National Crime Prevention and Privacy Compact Council (Compact Council).

The scope of the policy encompasses any CJI provided by or through the FBI, including not only traditional criminal history information, but also case information, property data, biographical data, and biometric data. In addition, the encryption of data, advanced authentication, cellular devices and other wireless technologies fall within the policy's scope. For additional information on CJIS requirements, see the FBI's *Criminal Justice Information Services (CJIS) Security Policy v5.3* document.

### Flex CJIS compliance

Agencies are responsible for configuring their Flex systems correctly and adopt policies and procedures to meet the FBI's CJIS policy requirements.

The software provides the following features to help agencies meet the minimum requirements established by the FBI. These features are available to Spillman 4.6 and above, using Mobile 4.5 and above:

- [“Flex Logging” on page 432](#)
- [“Deleting or Expunging Log Records” on page 440](#)
- [“Reports, Concurrent Logins, and Encryption” on page 446](#)
- [“Using Spillman PassKey” on page 456](#)

- [“Setting Up PassKey Authentication” on page 458](#)

## Flex Logging

The software uses the following tables for CJIS logging:

- **System Audit Log (syaudit).** Functions as a log-logger by logging actions performed by the sylog, aplogin, and ecsnlllog logs. See [“Using the System Audit Log table” on page 432](#).
- **System Log (sylog).** Protects audit information, controls audit record retention, time stamps audit logs, records actions performed in syaudit, and logs privilege changes. See [“Using the System Log table” on page 435](#).
- **Login Log (aplogin).** Logs information about logins and logouts, as well as facilitates Two-Factor authentication and computer association. See [“Using the Login Log table” on page 437](#).
- **StateLink SLN Log (ecsnlllog).** Logs information for all outgoing StateLink requests. See [“Using the StateLink SNL Log table” on page 439](#).

### NOTE

The requirements outlined in this manual are in addition to any logging functionality currently found in the application, except where noted. Most of the logging requirements can be met by the software application. However, there are some CJIS requirements that cannot and will not be captured as part of this project.

## Using the System Audit Log table

The System Audit Log table (syaudit) acts as a log-logger, or, as the FBI CJIS Security Policy terms it, the Audit Log. The syaudit log keeps track of actions performed on other system logs (sylog, aplogin, and ecsnlllog) to provide an audit trail of occurrences within that specific log. In addition, the actions performed on the syaudit log are recorded in the sylog table. Therefore, a record of the actions performed on all system security logs will always exist.

### NOTE

For UNIX servers, password changes are *not* logged in the sylog or syaudit tables.

In the System Audit Log screen, the **Add** and **Mod** buttons are not enabled. However, the **Del** button is enabled to meet the legal requirements to purge or expunge records. To delete a record or set of records from the syaudit table, see [“Deleting or Expunging Log Records” on page 440](#).



### Accessing the System Audit Log screen

To access the System Audit Log screen, at the command line, enter **syaudit**.

The screenshot shows the 'System Audit Log' window of the 'syaudit' application. The window has a menu bar (File, Edit, Search, Tools, Help) and a toolbar with various icons. The main area is divided into three sections: 'User Identification', 'Data Accessed', and 'Misc. Data'. The 'User Identification' section contains fields for 'User ID', 'Terminal ID', and 'Time/Date', with a 'SU' button. The 'Data Accessed' section contains fields for 'Log Accessed', 'Action', and 'Reason'. The 'Misc. Data' section is a large empty text area. At the bottom, there is a status bar with 'User: sds', a search prompt 'Search for specific records', and an 'OVR' button.

### System Audit Log field descriptions

The System Audit Log screen contains the following fields.

---

User ID

---

Displays the system user ID.

---

Terminal ID

---

Displays the system terminal ID.

---

Time/Date

---

Displays the system time/date stamp of user access.

---

Log Accessed

---

Displays the system log accessed by the user.

---

Action

---

Displays the system action taken by the user.

---

Reason

---

Displays the reason for deletion or expungement of a log record.

When a record or set of records is deleted in the `syaudit` or `sylog` table, the software prompts for the reason. If a reason is not given when a record is deleted or expunged, then this field displays `No reason entered`. For information about adding a reason, see [“Deleting or Expunging Log Records” on page 440](#).

---

Misc. Data

---

Displays miscellaneous data, such as search criteria.

Depending on the actions performed (Logged Events), this field populates with one of the following types of data:

- **Record content.** When the contents of the target log have been accessed, modified, or deleted, the contents of that record are populated. If the record is expunged, then the contents are not populated.
- **Dump/Load data.** If a `dbdump` or `dbload` has been performed on a log, then the data related to the `dbdump` or `dbload` is populated. The data populated is the same data that `sylog` captures when the system tables are dumped or loaded.

**NOTE**

When multiple records are deleted from the `sylog` table, a record is written to the `syaudit` table noting that the records were deleted. This is to prevent a massive increase in the size of the `syaudit` table as records are deleted.

The following events are logged by the `syaudit` table:

- Attempts to access, modify, or delete records in the following tables:
  - `sylog`
  - `aplogin`
  - `ecsnllog`
- Attempts to `dbdump` or `dbload` records in the following tables:
  - `sylog`
  - `aplogin`
  - `ecsnllog`
- The execution of the following reports:
  - `rpsldel`

- `rpsldump`

- Actions performed when Super User (SU) is enabled

---

SU

---

CJIS requires that all actions performed by privileged accounts be recorded. Therefore, this field displays a flag indicating whether an action was performed as Super User (SU) at the time of the event.

## Using the System Log table

The System Log (`sylog`) table protects audit information, controls audit record retention, time stamps audit logs, records actions performed in the `syaudit` log, and records privilege changes.

Be aware that by enabling certain logging features, greater storage space will be required. Therefore, plan accordingly during system configuration. The `sylog` table provides warnings on the modification and deletion of information.

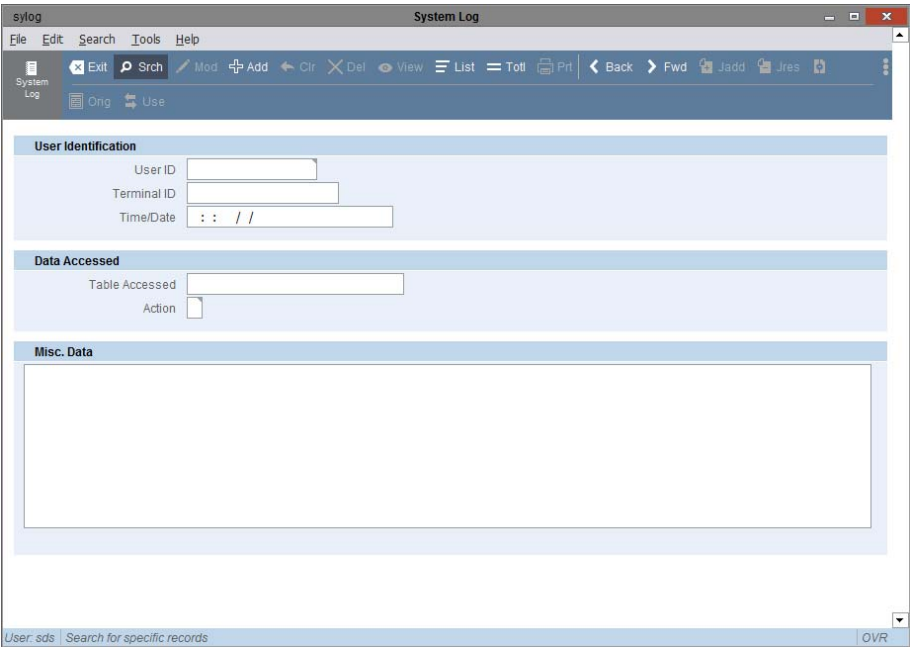
### NOTE

For UNIX servers, password changes are *not* logged in the `sylog` or `syaudit` tables.

To delete a record or set of records from the `sylog` table, see [“Deleting or Expunging Log Records” on page 440](#).

Accessing the System Log screen

To access the System Log screen, at the command line, enter **sylog**.



System Log  
field descriptions

The System Log screen contains the following fields.

User ID

Displays the system user ID. Usernames containing 12 characters or less are displayed as the username. Usernames containing 13 characters or more are displayed as the User ID (UID). For long usernames, showing the User ID makes it easier to know which user is being referenced.

Terminal ID

Displays the system terminal ID.

Time/Date

Displays the system time and date stamp of user access.

Table Accessed

Displays the system table accessed by the user.

---

**Action**

---

Displays the system mode used.

---

**Miscellaneous Data**

---

Displays miscellaneous data, such as search criteria.

The following Logged Events are recorded by the `sylog` table:

- When Super User (SU) is enabled.
- Actions taken in the `syaudit` table, such as:
  - A - Record Added
  - M - Record Modified
  - D - Record Deleted
  - dbdump, dbload
- Additional tables and modes to be logged (from the `logmodes` table):
  - C - Password Changed (only if the password is changed once the user is logged into the system)
  - O - Dbdump
  - L - Dbload

## ***Using the Login Log table***

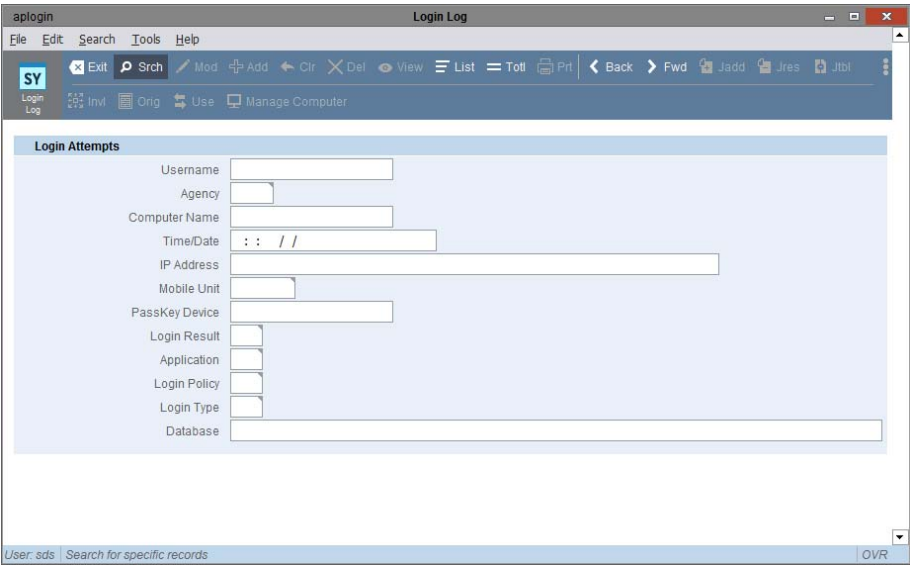
The Login Log (`aplogin`) table tracks login attempts and logouts, as well as facilitates Two-Factor authentication and computer association. Recording user logouts provides a broader view of what is happening within the system, and allows the system to track concurrent usage.

In the Login Log screen, the fields are view-only, and the **Add**, **Mod**, and **Del** buttons are disabled.

To manage computer associations, see [“Managing computer associations” on page 458](#).

Accessing the Login Log screen

To access the Login Log screen, at the command line, enter **aplogin**.



Login Log  
field descriptions

The Login Log screen contains the following view-only fields.

Username

Displays the system login username.

Agency

Displays the agency to which the user attempting to log in is assigned.

Computer Name

Displays the name of computer associated with the logged in user.

Login Time

Displays the time and date stamp of the login.

IP Address

Displays the IP Address associated with the computer login.

---

**Mobile Unit**

---

Displays the agency assigned to the Mobile unit number.

---

**PassKey Device**

---

Displays the description of the PassKey device.

---

**Login Result**

---

Displays the user login result.

---

**Application**

---

Displays the type of software application being used.

---

**Login Policy**

---

Displays the user login policy.

---

**Login Type**

---

Displays the type of user login.

---

**Database**

---

Displays the \$FORCEDLIST path of the login attempt.

## ***Using the StateLink SNL Log table***

The StateLink SNL Log (ecsnllog) table gathers all NCIC and Interstate Identification Index (III) transactions for StateLink for a minimum of one year.

Once the StateLink module is successfully set up, the software logs all outgoing StateLink requests in the StateLink SNL Log screen (ecsnllog) and all incoming StateLink returns in the StateLink Router Log screen (ecrtrlog).

For more information about these tables, see the *StateLink Manual*.

## Deleting or Expunging Log Records

Records can be deleted in the `ecsnllog`, `syaudit`, and `sylog` tables, but only the `syaudit` and `sylog` tables allow record expungement. In addition, only the `syaudit` and `sylog` tables prompt for a reason when a record is deleted or expunged. Adding a reason for deletion or expungement provides better information for auditing purposes.

To delete or expunge a `syaudit` or `sylog` record, see the following:

- “Deleting a `syaudit` or `sylog` record” on page 440
- “Deleting a set of `syaudit` or `sylog` records” on page 441
- “Expunging a `syaudit` or `sylog` record” on page 444.

For general information on deleting records or a set of records, see the *RMS Manual*.

### Deleting a `syaudit` or `sylog` record

To delete a `syaudit` or `sylog` record:

1. In the `syaudit` or `sylog` table, locate the record to delete.
2. Click the **Del** button.

If the record is less than 365 days old, then a dialog box opens, asking for verification to continue.

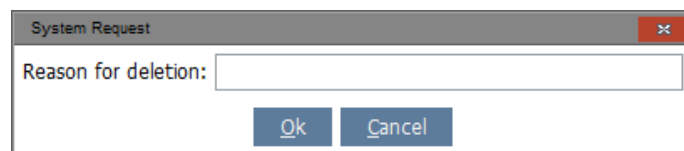


#### NOTE

It is best practice to maintain records for the FBI's required amount of time.

3. Click **Yes** to delete the record.

A dialog box opens, prompting for the reason for the deletion.





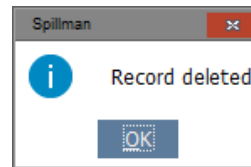
4. In the **Reason for** field, enter the reason that the record is being deleted. The name of the field depends on the action being taken.

**NOTE**

If the **Reason for** field is left blank, then the value is recorded as No reason entered.

5. Click **OK**.

A message box opens, confirming the deletion.



6. Click **OK**.

The record is deleted from the table. A new record is created in the syaudit or sylog table, in which the **Misc. Data** field displays the contents of the deleted record.

## ***Deleting a set of syaudit or sylog records***

A set of records can be deleted, but not expunged.

To delete a set of syaudit or sylog records:

1. In the syaudit or sylog table, click **Srch**.
2. Enter your search criteria. For field descriptions, see [“System Audit Log field descriptions” on page 433](#) or [“System Log field descriptions” on page 436](#).

3. Click **Accept**.

The search is performed and the oldest record in the search set is displayed.

4. Click **Totl**.

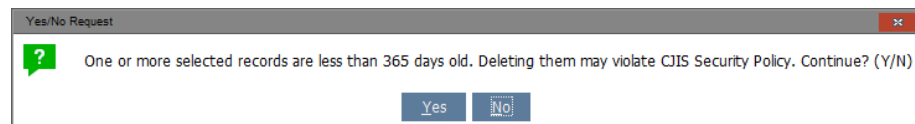
The number of records in the current set or table is totaled and displays in the lower-right corner of the screen.



Total number of  
records in the set

5. Click **Del** to delete the selection set.

If one or more records are less than 365 days old, then a dialog box opens, asking for verification to continue.

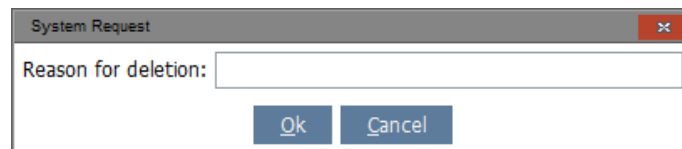


#### NOTE

It is best practice to maintain records for the FBI's required amount of time.

6. Click the asterisk (\*) button to delete the entire selection set.

A dialog box opens, prompting for the reason for the deletion.



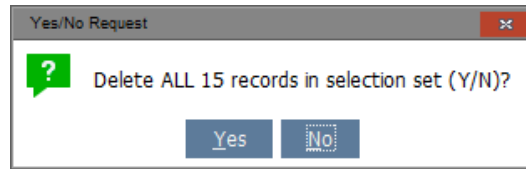
7. In the **Reason for** field, enter the reason that the record is being deleted. The name of the field depends on the action being taken

#### NOTE

If the **Reason for** field is left blank, then the value is recorded as *No reason entered*. If multiple records are being deleted, then the reason applies to all records and displays in each individual record that is deleted.

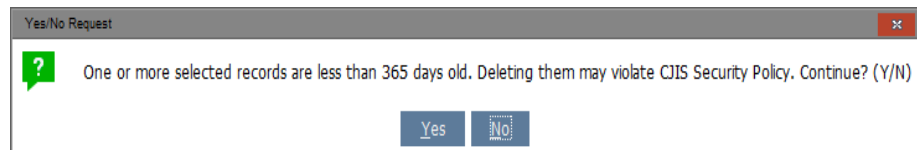
8. Click **OK**.

A dialog box opens, asking for verification to delete all records in the set.



9. Click **Yes**.

If one or more records are less than 365 days old, then a dialog box opens, asking for verification to continue.



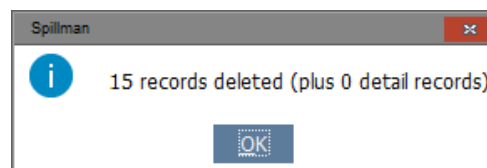
**NOTE**

It is best practice to maintain records for the FBI's required amount of time.

10. Click **Yes**.

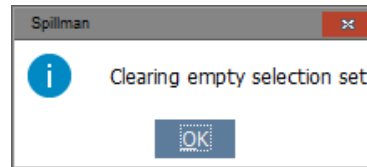
All records in the set are deleted. A new record is created in the `syaudit` or `sylog` table for each deleted record, in which the **Misc. Data** field displays the details of the deletion.

A message box opens, confirming the deletion of all the records in the search set.



11. Click **OK**.

A message box opens, stating that the empty selection set is being cleared.



12. Click **OK**.

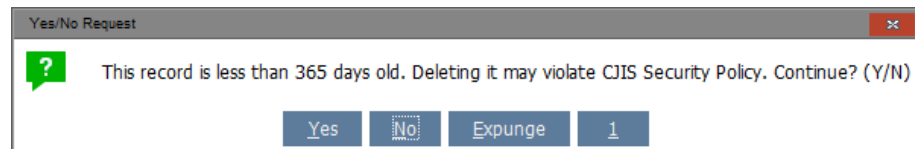
### ***Expunging a syaudit or sylog record***

Records must be expunged individually. A set of records cannot be expunged.

To expunge a syaudit or sylog record:

1. At the command line, enter **su** to enable Super User mode. Super User mode is required to expunge a record.
2. In the syaudit or sylog table, locate the record to expunge.
3. Click the **Del** button.

If the record is less than 365 days old, then a dialog box opens, asking for verification to continue.



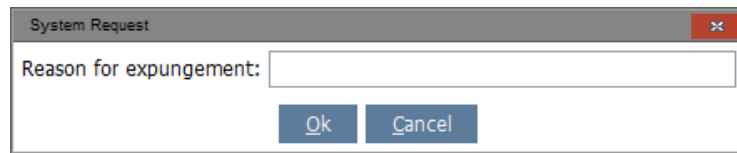
#### **NOTE**

It is best practice to maintain records for the FBI's required amount of time.

The **Expunge** button is available only when Super User mode is enabled.

4. Click **Expunge** to expunge the record.

A dialog box opens, prompting for the reason for the expungement.



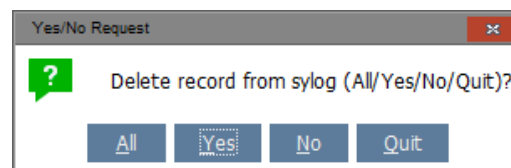
5. In the **Reason for** field, enter the reason that the record is being expunged. The name of the field depends on the action being taken.

#### NOTE

If the **Reason for** field is left blank, then the value is recorded as `No reason entered`.

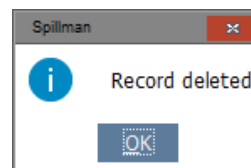
6. Click **OK**.

A dialog box opens, asking for verification to expunge the record from the table.



7. Click **Yes** to expunge the record.

A message box opens, confirming the expungement.



8. Click **OK**.

The record is expunged from the table. A new record is created in the `syaudit` or `syslog` table, in which the **Misc. Data** field displays either the reason given for the expungement, or the following message: `Data from this record has been expunged`.

## ***Reports, Concurrent Logins, and Encryption***

Agencies are required to review their CJIS-related security logs regularly to ensure there are no security or policy violations. As such, the following is provided:

- [“Using audit reporting” on page 446](#)
- [“Using the Audit Failure Notification feature” on page 450](#)
- [“Setting up concurrent logins” on page 453](#)
- [“Understanding FIPS encryption” on page 455](#)

### ***Using audit reporting***

Audit reporting for CJIS compliance is available with the following Audit reports:

- CJIS Logging report (`rpcjis`), see [“Accessing the CJIS Logging report” on page 446](#)
- Dump System Log Records report (`rpsldump`), see [“Accessing the Dump System Log Records report” on page 448](#)
- Delete System Log Records report (`rpsldel`), see [“Accessing the Delete System Log Records report” on page 449](#)

### ***Accessing the CJIS Logging report***

The CJIS Logging report provides information from the `sylog`, `aplogin`, `syaudit`, and `ecsnllog` logs.

To access the CJIS Logging Report screen, at the command line, enter **rpcjis**.

### CJIS Logging Report field descriptions

The CJIS Logging Report screen contains the following fields.

---

**Start Date**

---

Displays the start date for the request being made. This field is required.

---

**End Date**

---

Displays the end date for the request being made. This field is required.

---

**Log**

---

Displays the name of log being accessed.

---

**Table**

---

Displays the name of the table being accessed.

---

**User**

---

Displays the name of the user taking the action.

---

**Action**

---

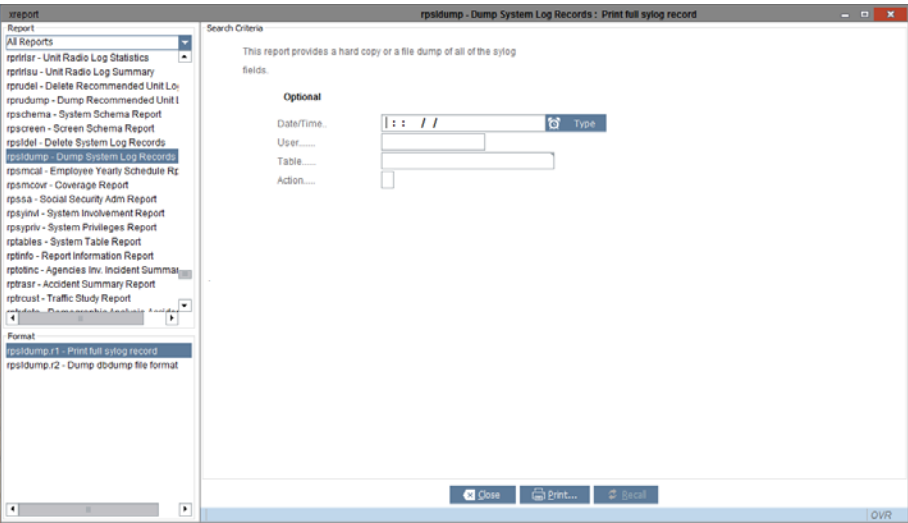
Displays the mode used to access the report.

Include Misc. Data

Select this check box to include miscellaneous data information in the report.

**Accessing the Dump System Log Records report**

The Dump System Log Records report is used to dump specified `syslog` files. To access the Dump System Log Records Report screen, at the command line, enter `rpsldump`.



**Dump System Log Records field descriptions**

The Dump System Log Records Report screen contains the following fields.

Date/Time

Displays the date and time of access for the request being made.

User

Displays the user ID of the user accessing the report.

Table

Displays the name of the table being accessed.

Action

Displays the mode used to access the report.



### Accessing the Delete System Log Records report

The Delete System Log Records report deletes all specified `sylog` records.

To access the Delete System Log Records Report screen, at the command line, enter **rpsldel**.

The screenshot shows a web-based report interface. On the left, a 'Report' list includes various system reports, with 'rpsldel - Delete System Log Records' highlighted. The main area is titled 'rpsldel - Delete System Log Records - by Searched Records'. It contains a 'Search Criteria' section with a text box for search criteria. Below this is an 'Important Note' stating: 'This report will delete all sylog records or those specified. This will not decrease the size of the sylog files. It will only allow for additional records to be added without affecting the size of the files.' An 'Important Note' also states: 'Run rpsldump.r2 prior to this report to save the records to a file for archiving. Rpsldump.r1 can also be used to create a hard copy printout.' Under the 'Optional' section, there are input fields for 'Date/Time...', 'User...', 'Table...', and 'Action...'. At the bottom right, there are buttons for 'Close', 'Print...', and 'Save'. The status bar at the bottom right shows 'OVR'.

### Delete System Log Records Report field descriptions

The Delete System Log Records Report screen contains the following fields.

Date/Time

Displays the date and time of access for the request being made.

User

Displays the user ID of the user accessing the report.

Table

Displays the name of the table being accessed.

Action

Displays the mode used to access the report.

#### NOTE

Run the `rpsldump.r2` report prior to the `rpsldel` report to save the records to a file for archiving. The `rpsldump.r1` report can also be used to create a hard copy printout.

## **Using the Audit Failure Notification feature**

Notifications can be e-mailed to select agency personnel when the system enters a state called Audit Processing Failure, in which an audit event can no longer be logged. An Audit Processing Failure involves events that prevent the `sylog`, `aplogin`, `syaudit`, or `ecsnllog` tables from logging as designed.

Events that trigger a notification include the following:

- System shutdown
- Deletion of `sylog`, `aplogin`, `ecsnllog` or `syaudit` log
- A database dump (`dbdump`) of the `sylog`, `aplogin`, `ecsnllog` or `syaudit` tables
- Changes to records in the System Parameter (`syparam`) table, such as `logmodes` or `lognames`

To use the Audit Failure Notification feature, the following system parameters must be set up in the Spillman Web Application Manager:

- [“Configuring the CJIS SMTP Setup” on page 450](#)
- [“Configuring the CJIS Audit Failure Notification” on page 452](#)

## **Configuring the CJIS SMTP Setup**

To configure the CJIS SMTP Setup:

1. Log in to the **Spillman Application Server**. For more information, see the *Application Setup and Maintenance Manual*.
2. Click the **WebApp Manager** icon.  
The Spillman WebApp Manager screen opens.
3. Click the **/Spillman** link.  
The software screen opens.
4. From the menu pane, click the **SMTP Setup** link.

The SMTP Setup screen opens.

The screenshot shows the Spillman Application Manager interface. At the top, there's a header with 'Spillman Application Manager' and a breadcrumb trail 'Home » Spillman » SMTP Setup'. Below the header, there are two tabs: 'PROPERTIES' (selected) and 'TEST'. A 'Message' dialog box is open, showing 'OK'. Below the dialog, the 'SMTP Setup' section is visible. It has a tabbed interface with 'SERVER SETTINGS', 'SECURITY', and 'AUTHENTICATION'. Under 'SERVER SETTINGS', there are fields for 'Host Name' (set to 'localhost') and 'Port' (empty). Under 'SECURITY', there is a 'Use SSL' checkbox (unchecked). Under 'AUTHENTICATION', there is an 'Authenticate' checkbox (unchecked), and fields for 'Username' and 'Password' (both empty). There are 'Update' buttons at the top right of the 'SMTP Setup' section and at the bottom right of the 'AUTHENTICATION' section.

5. Complete the **Host Name** and **Port** fields. All other fields are optional. For field descriptions, see [“SMTP Setup field descriptions” on page 451](#).
6. Click **Update** to save the settings.

### SMTP Setup field descriptions

The SMTP Setup screen contains the following fields.

Host Name

Enter the host name for the e-mail (SMTP) server that delivers messages. For example, **mailgw.spillman.com**. This field is required.

Port

Enter the port for the e-mail (SMTP) server that delivers messages. For example, **25**. This field is required.

---

Use SSL check box

---

Select this check box to use SSL for security with the e-mail (SMTP) server that delivers messages. This field is optional.

---

Authenticate check box

---

Select this check box to use authentication with the e-mail (SMTP) server that delivers messages. This field is optional.

---

Username

---

Enter the username for the email (SMTP) server that delivers messages. This field is optional.

---

Password

---

Enter the password for the email (SMTP) server that delivers messages. This field is optional.

### **Configuring the CJIS Audit Failure Notification**

To configure the CJIS Audit Failure Notification:

1. Log in to the **Spillman Application Server**. For more information, see the *Application Setup and Maintenance Manual*.
2. Click the **WebApp Manager** icon.  
The Spillman WebApp Manager screen opens.
3. Click the **/Spillman** link.  
The software screen opens.
4. From the menu pane, click the **CJIS Setup** link.

The CJIS Setup screen opens.

5. In the **Email Sender** field, enter the e-mail address that will send the audit failure notifications.
6. In the **Email Recipients** field, enter the e-mail address(es) for the recipient(s) that will receive the audit failure notifications.
7. Click **Update** to save the settings.

## Setting up concurrent logins

The CJIS Security Policy, section 5.5.2.2, stipulates the following:

*All IT systems should prevent multiple concurrent active sessions for one user identification, for the application accessing CJI, unless the agency grants authority based upon operational business needs. Agencies shall document the parameters of the operational business needs for multiple concurrent active sessions.*

In accordance with the policy, the system includes access controls that limit concurrent logins. Concurrent logins are allowed on a per user or per group basis.

### CAUTION

The default concurrent login setting includes access controls that limit concurrent logins within the system.

Concurrent logins are configured using the Administration Manager (adminutil).

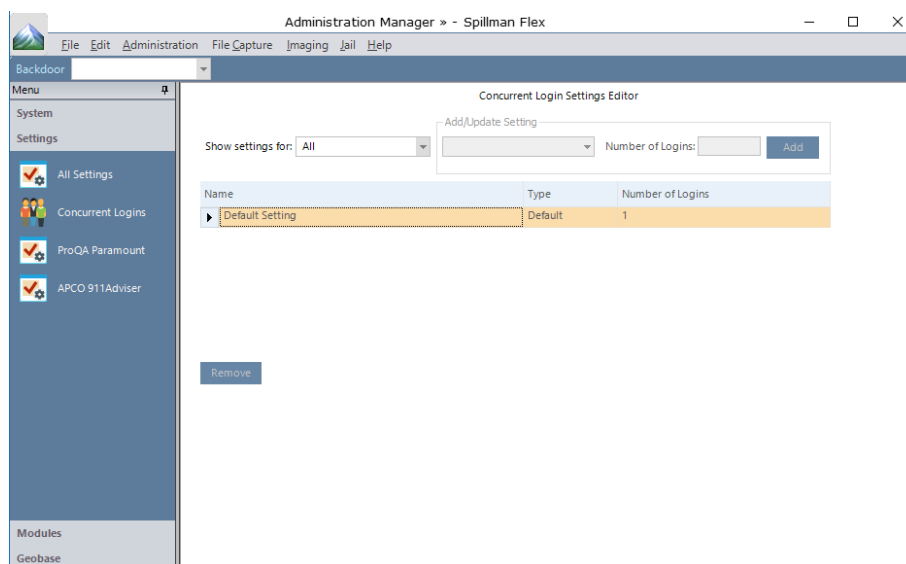
To set up concurrent logins:

1. At the command line, enter **adminutil**.

The Administration Manager opens.

2. From the **Settings** menu group, select the **Concurrent Logins** menu item.

The Concurrent Logins screen opens. By default, the settings for all users, groups, and agencies are displayed.



3. In the **Show settings for** field, select the privilege level for which to configure settings. For more information about privilege types and levels, see the *Security Setup and Maintenance Manual*.

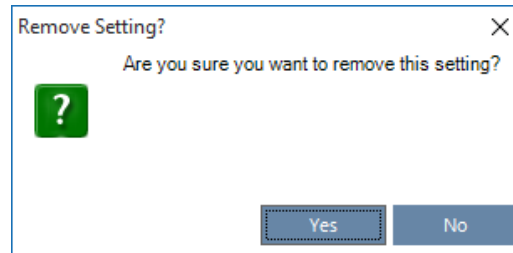
#### NOTE

In the **Show settings for** field, one of the following settings must be selected to enable the **Add** and **Remove** buttons: World, Agency, Group, or User.

To configure settings for all users, agencies, or groups, use the World setting.

4. In the **Add/Update Setting** field, select the desired user or group.
5. In the **Number of Logins** field, set the desired number allowed for the user or group, between 1 and 99.
6. Click **Add** to modify existing settings, or to add new settings.
7. To remove a user or group from the list, select the record, and then click **Remove**.

A prompt box opens, asking for verification to remove the setting.



8. Click **Yes** to remove the setting. Otherwise, click **No** to cancel.
9. When finished, close the Administration Manager screen.

Your changes are automatically saved and will take effect the next time the Administration Manager is opened.

### ***Concurrent Login error messages***

If a user attempts to log in to the software with an active session, and the number of concurrent logins allowed has been exceeded, then the following error message is displayed:

Per CJIS Policy 5.5.2.2, you are only allowed (n) concurrent login(s). You will immediately be logged off.

### ***Understanding FIPS encryption***

In accordance with the FBI's CJIS security policy, the software provides an encrypted connection (FIPS 140-2 compliant) for data that is transmitted between the Flex server and client software. This includes the Flex and Mobile clients.

In addition, the software provides a valid Secure Sockets Layer (SSL) connection for web applications between the client browser and the Spillman Tomcat application server.

For more information, contact Spillman Technical Services. Agencies are responsible for configuring their Flex systems correctly and adopting policies and procedures to meet the FBI's CJIS policy requirements.

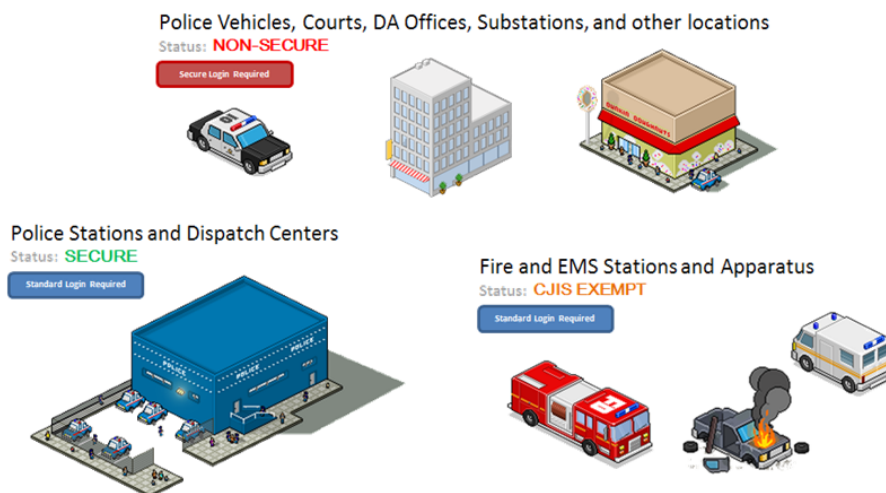
For more information about the FIPS publication 140-2, visit <http://csrc.nist.gov/groups/STM/cmvp/standards.html>.

## Using Spillman PassKey

In accordance with the CJIS Security Policy, v5.3, section 5.5.6.2, the software supports Advanced Authentication through Spillman PassKey. Advanced Authentication is another login security factor, in addition to the standard username and password.

Advanced Authentication is for systems that are not located inside a secure facility, such as substations or patrol vehicles. Systems located inside a secure facility, such as police stations or dispatch centers, require a standard login. CJIS-exempt systems, such as Fire and EMS stations, also require a standard login.

The following diagram illustrates non-secure, secure, and CJIS-exempt systems.



Spillman PassKey allows agencies to set security options based on the location of the application, and provides the following:

- Varying security options based on the location of the computer
- Enhanced logging for login and access
- Ability to remotely deactivate login access for specific computers

### Spillman PassKey setup tasks

To set up Spillman PassKey, complete the following tasks:



- Associate computers that are located in a secure facility and do not require Advanced Authentication with a Flex identification. See [“Setting Up PassKey Authentication” on page 458](#).
- Associate Passkey devices to the necessary apnames records. See [“Managing PassKey Authentication for users” on page 462](#).
- Make sure your users have a PassKey device for logging in to Flex or Mobile. See [“Logging in with a PassKey device” on page 465](#).
- Set up the default security for computers at your agency that do not have a PassKey Computer Admin (appkcomp) record. See [“Setting up the default behavior” on page 466](#).

## Setting Up PassKey Authentication

Each computer or Mobile unit that does not require Advanced Authentication must be associated to give the computer or Mobile unit an identification recognized by the software.

In addition, if a user needs to log in to a computer that requires PassKey authentication, then their Official Names Codes (apnames) record must be associated with a PassKey Device record (appkdev).

To set up PassKey authentication, complete the following tasks:

- [“Managing computer associations” on page 458](#)
- [“Managing PassKey Authentication for users” on page 462](#)
- [“Setting up the default behavior” on page 466](#)
- [“Setting up the Computer Group field” on page 468](#)
- [“PassKey device hardware information” on page 468](#)

For information on how users log in with a Passkey device, see [“Logging in with a PassKey device” on page 465](#).

### Managing computer associations

The **Manage Computer** button in the Login Log screen is used to open the Passkey Computer Admin screen (appkcomp), which provides a means to associate user computers with the system. When a computer is associated, it can be used with Advanced Authentication hardware, and eliminates the need for an SAA to visit every user’s computer.

#### NOTE

Once a computer has been associated with an appkcomp record, it cannot be disassociated or reassociated. If the computer name or hardware used to create the appkcomp record changes, then the record must be deleted and a new one created.

If a system-wide agency is not set for users, or if the default agency record is deleted, then the system will lock users out of the Flex or Mobile software.

It is considered a best practice to set up all computers that will not require Advanced Authentication before enabling an agency-wide policy that restricts system access. In addition, it is strongly encouraged to assign a PassKey device to the SAA so they have the ability to log in or disable the Advanced Authentication requirement for any computer that may come in from the field.

To create a computer association:

1. At the command line, enter **aplogin**.

The Login Log screen opens.

2. Search for the desired **aplogin** record.

3. With the record open, click the **Manage Computer** button.

The Passkey Computer Admin screen opens.

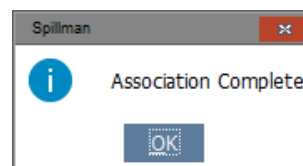
- If the computer is already associated, then the existing **appkcomp** record is displayed. Click **Mod**.
- If the computer is not yet associated, then the screen opens in Add mode.

The screenshot shows the 'PassKey Computer Admin' application window. The title bar reads 'appkcomp PassKey Computer Admin'. The menu bar includes 'File', 'Edit', 'Search', 'Tools', and 'Help'. The main window has a header 'Add a new record' with 'Accept', 'Cancel', and 'Previous' buttons. The form is divided into three sections: 'Computer Details', 'Security', and 'Status'. The 'Computer Details' section has fields for 'Number' (containing '1'), 'Agency', 'Name', 'Computer Group', 'Description', and 'Location'. The 'Security' section has a 'Login Type' dropdown and an 'Associated' status field showing ': : / /'. The 'Status' section has a 'Status' dropdown, a 'Date' field with a date picker, a 'By' field, and a 'Comments' text area. At the bottom, a status bar shows 'User: sds' and 'Add a new record to this table'.

4. Complete or edit the fields. For field descriptions, see [“PassKey Computer Admin field descriptions”](#) on page 460.

5. Click **Accept**.

A unique identification data set is created and associated with the user's computer. A message box opens, indicating the completed association.



6. Click **OK**.

The record is added to the `appkcomp` table. A new record is created in the `sylog` table, logging the addition of the record in the **Misc. Data** field.

When a user attempts to log in to the software on the associated computer, they must meet the authentication specified in the `appkcomp` record. If the computer is set up to require a PassKey device, then the user must be issued a PassKey device specific to them.

7. To return to the Login Log screen, click **Exit**.

### PassKey Computer Admin field descriptions

The PassKey Computer Admin screen contains the following fields.

---

Number

---

Displays the software-generated number for the `appkcomp` record.

---

Name

---

View-only. Displays the Windows computer name.

---

Description

---

Enter a description to identify the computer. This field can be customized to fit your agency's needs.

---

Agency

---

Select the agency that owns the computer. This field can be customized to fit your agency's needs.

---

Computer Group

---

Select the group within the agency that owns the computer. Codes displayed in the code list can be customized by using the Computer Groups code table (`pkbgrp`) to create new computer groups. For more information, see [“Setting up the Computer Group field” on page 468](#).

---

Location

---

Enter a brief description of the computer's physical location.

---

Login Type

---

Select the type of security login allowed for this computer:

- **DEV:** Passkey device required to log in to the database.
- **STA:** Standard login of username and password is required to log in to the database.

---

**Associated**

---

View-only. Displays the time and day when the computer was associated.

---

**Status**

---

By default, when the record is first saved, the status `Enabled` is populated.

If necessary, select the current status of the computer:

- **ENA:** Enabled. A user can log in to the database with the proper authentication.
- **DIS:** Disabled. A user cannot log in to the database. If a user attempts to log in, an error message is displayed and the software exits.

**NOTE**

This feature allows an SAA to quickly disable a computer that has been stolen, misplaced, or is being repaired.

---

**Date**

---

Enter the time and date when the computer will be enabled or disabled, or click the clock icon to insert the current time and date.

---

**By**

---

Displays the name of the person that created the record (the current user).

If necessary, select the name of the person who is enabling or disabling the association.

---

**Comments**

---

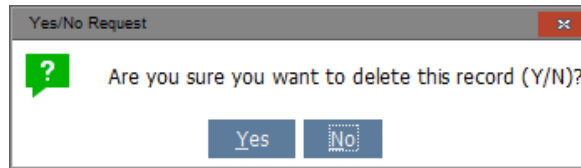
Enter any comments about the computer.

***Deleting a computer association***

To delete a computer association:

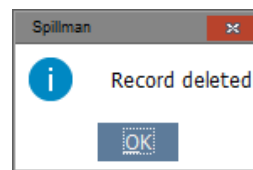
1. With the desired `appkcomp` record open, click the **Del** button.

A dialog box opens, asking for verification of the deletion.



2. Click **Yes** to delete the record.

A message box opens, confirming the deletion.



3. Click **OK**.

The record is removed from the table. A new record is created in the `sylog` table, logging the deletion of the record in the **Misc. Data** field.

## Managing PassKey Authentication for users

If a user needs to log in to a computer that requires PassKey authentication, then their Official Names Codes (`apnames`) record must be associated with a PassKey Device record (`appkdev`).

To associate an `apnames` record with PassKey authentication:

1. At the command line, enter **`apnames`**.

The Official Names Codes screen opens.

2. Search for the desired record for which to add advanced authentication.

The PassKey Device screen (`appkdev`) opens.

- If the `apnames` record is associated with a PassKey device, then the PassKey Device record is displayed. Click **Mod**.
- If the `apnames` record is associated with multiple PassKey devices, then the List screen opens. Select the `appkdev` record to view, and then click **Accept** to open the record. Click **Mod**.

- If the apnames record is not associated with a PassKey device, then the screen opens in Add mode.

The screenshot shows the 'Device PassKey Admin' application window. The title bar reads 'appkdev Device PassKey Admin'. The menu bar includes 'File', 'Edit', 'Search', 'Tools', and 'Help'. The main window has a header 'Add a new record' with 'Accept', 'Cancel', and 'Previous' buttons. The form is divided into three sections: 'Employee', 'Device Details', and 'Status'. The 'Employee' section has fields for 'Name Code' (101), 'Agency' (SCSO - Spring County Sheriff), 'Officer Name' (D Gordon), and 'Full Name' (David Gordon). The 'Device Details' section has fields for 'Number' (2), 'Associated' (empty), 'Serial' (empty), and 'Description' (empty). The 'Status' section has fields for 'Status' (empty), 'Date' (empty), 'By' (empty), and 'Comments' (empty). The bottom status bar shows 'User: sds | Add a new record to this table' and 'OVR'.

3. Complete or edit the fields. For field descriptions, see [“PassKey Device field descriptions” on page 463](#).

4. Click **Accept**.

The record is added to the appkdev table. A new record is created in the sylog table, logging the addition of the record in the **Misc. Data** field.

5. Insert the PassKey device into the computer’s USB port.

6. Click **Associate**.

The software searches for a valid PassKey device. If found, the software stores the device’s information in the PassKey Device record, timestamps the association, and changes the device status to Enabled.

### PassKey Device field descriptions

The PassKey Device screen contains the following fields.

---

Name Code

---

Displays the name code for the officer from the apnames record.

If this code is changed and the PassKey Device record is saved, then the PassKey Device record is saved under the new apnames record, and not the current apnames record.

---

Officer Name

---

View-only. Displays the name of the officer from the `apnames` record.

---

Agency

---

View-only. Displays the name and code for the agency to which the officer belongs from the `apnames` record.

---

Full Name

---

View-only. Displays the full name of the officer from the `apnames` record.

---

Number

---

Displays the software-generated number for the PassKey Device record.

---

Serial

---

Enter the serial number that is engraved on the PassKey device.

---

Associated

---

View-only. Displays the time and date when the device was associated.

---

Description

---

Enter any additional information to identify the PassKey device.

---

Status

---

When the **Associate** button is clicked, if the software finds a valid PassKey device, then the status of `Enabled` is populated.

If necessary, select the current status of the device:

- **ENA**: Enabled. A user can log in to the database with the device.
- **DIS**: Disabled. A user cannot log in to the database with the device. If a user attempts to log in with the device, then an error message is displayed and the software exits.

#### NOTE

This feature allows an SAA to quickly disable a device that has been stolen, misplaced, or is being repaired.



---

Date

---

Enter the time and date when the device will be enabled or disabled, or click the clock icon to insert the current time and date.

---

By

---

Displays the name of the person that created the record (the current user).

If necessary, select the name of the person who is enabling or disabling the association.

---

Comments

---

Enter any additional information about the device.

### ***Logging in with a PassKey device***

If a user's computer is in a non-secure location, then the computer that requires a PassKey device can be set up to log in to Flex. When the PassKey device is inserted into one of your computer's USB ports, the software uses your password and the PassKey device as verification to access the software on your computer.

To log in to a computer that requires a PassKey device:

1. Insert the PassKey device into one of the computer's USB ports.
2. Launch Flex or Mobile, and then log in with your credentials.
3. Once logged in to Flex or Mobile remove the PassKey device.

If at login, the software is unable to detect a valid PassKey device, or one is not plugged in, then the PassKey Error dialog box opens, prompting for the device.



4. Repeat step 1, and then click **Try Again**.

## Setting up the default behavior

Your agency can determine the default security required for any computer that does not have a PassKey Computer Admin (appkcomp) record. Use the PassKey Agency Defaults screen (appkdef) to set both system-wide and agency-default security requirements.

### NOTE

It is recommended to set up all computers that will not require Advanced Authentication before enabling an agency-wide policy restricting system access.

To set up the default behavior:

1. At the command line, enter **appkdef**.

The PassKey Agency Defaults screen opens.

2. Click **Add**.
3. In the **Agency** field, select the code of the agency for which the default settings apply.
4. In the **Login Type** field, select the default login type allowed for computers *without* a PassKey Computer Admin (appkcomp) record:
  - **DEV**: PassKey device required. If a user attempts to log in to the database from a computer where no appkcomp record exists, then a PassKey device is required.

- **STA**: Standard login required. If a user attempts to log in to the database from a computer where no `appkcomp` record exists, then only the standard username and password are required. This is the default value for any user without a specific agency policy set.
  - **DIS**: Disabled. If a user attempts to log in to the database from a computer where no `appkcomp` record exists, then an error message displays and the software closes.
5. In the **Status** field, select whether the System Use Notification message (CJIS Security Policy, version 5.0, section 5.5.4) is displayed for users of the selected agency:
    - **ACT**: Active. Displays the System Use Notification message.
    - **INA**: Inactive. Does not display the System Use Notification message. This is the default status setting for any user without a specific agency policy set.
  6. In the **Message** field, enter the text that will appear in the System Use Notification message when a user logs in to the system. When adding a new record, the **Message** field is blank.

**NOTE**

When a specific agency policy is not set, the following default message is used:

Users of this system are advised they are entering into a records and data collection system that is governed by applicable agency policies, local, state, and federal laws, and other regulations and are hereby notified that all usage may be monitored, recorded, and is subject to audit.

Unauthorized use of this system is prohibited. Unauthorized users may be subject to criminal and/or civil penalties. Continuing to use this system indicates the users' consent to the monitoring and recording of all actions within the system.

**7. Click *Accept*.**

The record is saved to the `appkdef` table. A new record is created in the `sylog` table, logging the addition of the record in the **Misc. Data** field.

8. If desired or necessary, repeat step 2–7 for each agency on your system.

## Setting up the Computer Group field

Computer Group Type codes are referenced by the **Computer Group** field in the PassKey Computer Admin screen (appkcomp). Use the Computer Group Type (pktbgrp) code table to set up categories of computer groups that your agency tracks on Official Names Codes (apnames) records.

For information on adding codes to code tables, see the *Code Table Setup and Maintenance Manual*.

The pktbgrp code table contains the following standard codes.

| Code | Description    |
|------|----------------|
| ADM  | Admin          |
| DIS  | Dispatch       |
| INV  | Investigations |
| PAT  | Patrol         |
| REC  | Records        |

Codes for the computer group type must be three characters, alphanumeric, while descriptions for the codes can be up to 30 characters, alphanumeric. The description for the code is the text that displays in an apnames record.

## PassKey device hardware information

The software's PassKey USB token has the following hardware characteristics:

- Individually serialized unique identification information
- Read-only, non-storage device
- Cannot be altered or copied
- Exterior serial number to allow agencies to track the device
- Part of the hardware
- Recognized for a single user at one time

The use of this device was vetted by the Federal Bureau of Investigation (FBI) and is approved for Flex users.

# Appendix A

---

The software provides a UNIX Administration Menu (`admmenu`) that allows the SAA to perform basic operating system functions without leaving the software. You perform the supported operations using buttons on a toolbar. The UNIX Administration Menu is applicable only for certain UNIX-based operating systems. It may not apply to the system you are using.

The UNIX Administration Menu contains the following items:

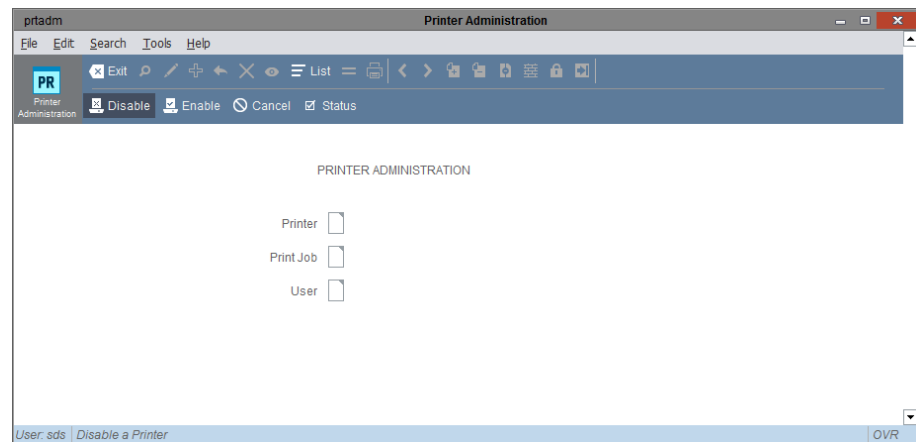
- Printer Administration (`prtadm`)—lets you perform any of the following UNIX functions: disable printer, enable printer, cancel specified print jobs, list print job information, and display printer status.
- Disk Usage Information (`diskuse`)—provides information on disk usage, including free disk space. If you run this program periodically, the screen displays a history of disk usage for comparison.
- CPU Process Administration (`procadm`)—lets you quickly list or kill current processes.

## Printer Administration

The Printer Administration program (`prtadm`) lets you perform the following operating system commands directly from toolbar:

- Disable printer
- Enable printer
- Cancel print job(s)
- List print job information
- Display printer status

The Printer Administration screen appears as follows.



### Fields

---

Printer

---

The name of the printer for which you are performing an administrative function. Perform a Lookup for a list of printers.

---

Print Job

---

The print job for which you are performing an administrative function. Perform a Lookup for a list for a list of current print jobs.

---

User

---

The user on whose print job you are performing an administrative function. Perform a Lookup for a list of users.

## Disabling a printer

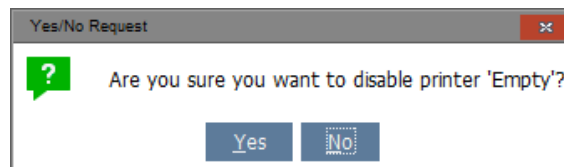
To disable a printer, follow the steps below. You must log on to UNIX as root.

1. At the command line, enter **prtadm** to access the Printer Administration screen.
2. Click **Disable**.

The cursor rests at the **Printer** field.

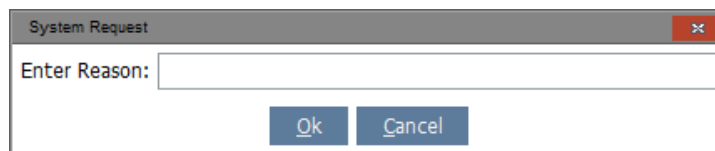
3. Enter the name of the printer you wish to disable, or perform a Lookup and select the printer from the displayed list. Press Enter.

The software displays the following prompt:



4. Click **Yes** to disable the printer indicated, or click **No** to cancel the operation.

If you click **Yes**, the software prompts you for the reason you are disabling the printer.



5. Enter the reason.

A window appears with a message indicating that the printer is disabled.

6. Click **OK**.

## Enabling a printer

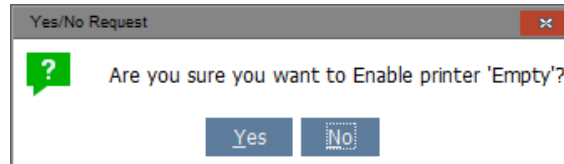
To enable a printer, follow the steps below:

1. At the command line, enter **prtadm** to access the Printer Administration screen.
2. Click **Enable**.

The cursor rests at the **Printer** field.

3. Enter the name of the printer you wish to enable, or perform a Lookup and select the printer from the displayed list. Press Enter.

The software displays the following prompt:



4. Click **Yes** to enable the printer indicated, or click **No** to cancel the operation.

If you click **Yes**, a window appears with a message indicating that the printer is enabled.

5. Press Enter.

## Canceling a print job

To cancel one print job, follow the steps below:

1. At the command line, enter **prtadm** to access the Printer Administration screen.
2. Click **Cancel**.  
The cursor rests at the **Printer** field.
3. Enter the printer name in the **Printer** field. You can click the Lookup button (Ctrl+E) and select the printer name from the list that appears.
4. In the **Print Job** field, click the Lookup button (Ctrl+E) to view a list of the current print jobs. Using the arrow keys, highlight the print job you wish to cancel. Then, press Enter.

The software displays a prompt asking Are you sure?

5. Click **Yes** to cancel the print job, or click **No** to continue the print job.

To cancel all print jobs for a specified printer or user, simply enter the printer or username in the **Printer** or **User** field and then proceed with step 4.



## Listing print job information

To list print job information for a printer or user, follow the steps below:

1. At the command line, enter **prtadm** to access the Printer Administration screen.
2. Click **List**.

The cursor rests at the **Printer** field.

3. Enter, in the **Printer** or **User** field, the printer or user for which you wish to display print jobs. Then, click **Accept** (Alt+A).

A window appears, displaying information on all print jobs for the printer or user indicated. The information is similar to the following:

```
lq-20356 john 603 Jun 17 15:59 printing
```

The above message indicates that there is a print job with ID “lq-20356” for the user “john.” The job was sent on June 17 at 15:59, and the status of the job is “printing.”

4. Press Enter to clear the window.

## Displaying the status of a printer

To display a printer’s status, follow the steps below:

1. At the command line, enter **prtadm** to access the Printer Administration screen.
2. Click **Status**.

The cursor rests at the **Printer** field.

3. Enter the name of the printer for which you wish to display status information, or perform a Lookup and select the printer from the displayed list. Press Enter.

A window appears, displaying the information as in the following example:

```
scheduler is running
printer lq disabled since Tue Oct 15|
15:32:20 1991. available.
down for repair
```

The above message means that the scheduler is running for printer lq and that the printer is disabled because it is down for repairs. If the printer is enabled, the message indicates whether the printer is idle or

running a print job. To print, the scheduler must be running and the printer must be enabled.

4. Press Enter.

## Setting privileges for the Printer Administration screen

In the Printer Administration screen (prtadm), you can enable and disable printers, view the status of printers, view pending print jobs, and cancel print jobs. In addition to using the printer administration features yourself, you can allow other users to perform specific printer administration tasks. For example, you can give a user or a group of users privileges to view and cancel their own print jobs while withholding privileges to disable or enable printers.

If you only allow a user to view and cancel his or her print jobs, the software removes the **Enable** and **Disable** buttons from the toolbar of the user's Printer Administration screen and restricts the **User** field on that screen to the current user.

To set user privileges for the Printer Administration screen (prtadm):

1. At the command line, enter **sypriv**. The User Privileges table (sypriv) appears.

sypriv User Privileges Table

File Edit Search Tools Help

Exit Srch Mod Add Clr Del List Totl Pnt Back Fwd Jadd Jres Partn

User Privileges Orig Use

(U)ser (G)roup (A)gency (W)orld (P)assword:

User ID / Group ID / 0 / Password:

Menu/Prgm/Table / Table[security identifier]:

May user access with admin privileges? ☐

May user access Menu/Prgm/Table w/o a password? ☐

May user Add records? ☐

May user Modify records? ☐

May user Delete records? ☐

May user Read records? ☐

May user use Partn, Pswd, [or Warn] options? ☐

[May user move records out of partition?]

May user access Menu/Prgm/Table with a password? ☐

[May user move records into partition?]

User: ldunn Search for specific records OVR

2. Click **Add**.
3. In the first field, enter **U** for user, **G** for group, or **W** for all users (the world). If you are assigning the privileges for all users, the second field does not apply. Go to step 5.

4. In the second field, enter the user ID or group ID. You can perform a Lookup to view a list of the identification numbers.
5. In the third field, enter `prtadm`.
6. In the fourth field, enter 1 to give the user(s) access to the Printer Administration screen.
7. In the fifth field, enter one of the following values:
  - Enter **0** to prohibit the user(s) from adding records in the Printer Administration screen. The default value is **0**.
  - Enter **1** to allow the user(s) to add records in the Printer Administration screen.
8. In the sixth field, enter one of the following values:
  - Enter **1** to allow the user(s) to cancel any user's print jobs, enable printers, disable printers, and perform all other Printer Administration tasks.
  - Enter **0** to restrict the access of the user(s) so that they can only view and cancel their own print jobs. If you enter **0**, the **Disable** and **Enable** buttons are removed from the Printer Administration toolbar and the **User** field is restricted to the current user. The default value is **0**.
9. In the seventh field, enter one of the following values:
  - Enter **0** to deny the user(s) `Delete` privileges to the Printer Administration screen. The default is **0**.
  - Enter **1** to grant the user(s) `Delete` privileges to the Printer Administration screen.
10. In the eighth field, enter 1 to allow the user(s) to read records in the Printer Administration screen.
11. Click **Accept** (Alt+A) to add the `sypriv` record.

The following sample shows the values used to limit printer privileges for an individual user.

sypriv User Privileges Table

File Edit Search Tools Help

SY User Privileges Orig Use

(U)ser (G)roup (A)gency (W)orld (P)assword: U  
 User ID / Group ID / 0 / Password: 4062 <wabel>  
 Menu/Prgm/Table / Table[security identifier]: prtadm

May user access with admin privileges? Y

May user access Menu/Prgm/Table w/o a password? 1 Yes

May user Add records? 1 Yes

May user Modify records? 0 No

May user Delete records? 0 No

May user Read records? 1 Yes

May user use Partn, Pswd, [or Warn] options? 0 No

[May user move records out of partition?]

May user access Menu/Prgm/Table with a password? 0 No

[May user move records into partition?]

User: idunn Search for specific records OVR

## ***Disk Usage Information***

The Disk Usage Information program (`diskuse`) displays disk usage information for each UNIX file system. (UNIX manages disk space in units called file systems. For example, your hard disk may have file systems known as “/” and “/u.”)

A file system is full if either Free MB or I\_Free has a value of 0.

The screen displays disk usage for the current week, followed by usage history for each week in which this usage program was run. The program stores usage history for up to 1 year.

A list window appears displaying various disk usage information, such as the amount of disk space used, the amount of space available, or the current week. The information varies depending on your particular operating system.

## CPU Process Administration

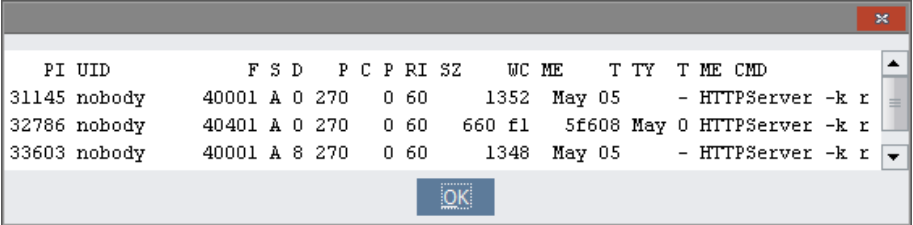
The CPU Process Administration program (`procadm`) lets you list or kill all current processes.

### Listing current processes

To list current processes (for example, in order to find the necessary information to kill a process), follow the steps below. You must be logged on as root to kill anyone's processes besides your own.

1. Enter **procadm** at the command line. The CPU Process Administration screen appears.
2. Click **List**.  
The cursor rests at the **User** field.
3. Enter the username of the person for whom you wish to list processes, or perform a Lookup and select from the displayed list.

A window appears, displaying information about the user's processes, as in the following example:



| PI    | UID    | F     | S | D | P   | C | P  | RI | SZ | WC   | ME     | T     | TY         | T          | ME | CMD |
|-------|--------|-------|---|---|-----|---|----|----|----|------|--------|-------|------------|------------|----|-----|
| 31145 | nobody | 40001 | A | 0 | 270 | 0 | 60 |    |    | 1352 | May 05 | -     | HTTPServer | -k         | r  |     |
| 32786 | nobody | 40401 | A | 0 | 270 | 0 | 60 |    |    | 660  | f1     | 5f608 | May 0      | HTTPServer | -k | r   |
| 33603 | nobody | 40001 | A | 8 | 270 | 0 | 60 |    |    | 1348 | May 05 | -     | HTTPServer | -k         | r  |     |

4. Click **Continue** or press Enter to exit the window.

### Killing all processes for a user

To kill all processes for a specific user, follow the steps below. You must be logged on as root to kill anyone's processes besides your own.

1. Enter **procadm** at the command line. The CPU Process Administration screen appears.
2. Click **Kill**.  
The cursor rests at the **User** field.
3. Enter the username of the person for whom you wish to kill all processes, or perform a Lookup and select from the displayed list.

The software prompts: Are you sure?.

4. Click **Yes** to kill all the user's processes, or click **No** to cancel the kill operation.

## ***Killing one process***

To kill one process for a specific user, follow the steps below:

1. Enter **procadm** at the command line. The CPU Process Administration screen appears.
2. Click **Kill**.

The cursor rests at the **User** field.

3. Move the cursor to the **Process ID** field.
4. Enter the PID number of the process you wish to kill.

If you do not know the PID number, perform a Lookup. A list of all current processes appears. Narrow the list by typing the first letter(s) of the username of the person for whom you wish to kill a process. For example, to restrict the list to processes for all users whose usernames begin with "jo," type **j**.

5. Select the process you wish to kill.

After you enter a PID number or select the process from the list, the software prompts: Are you sure?.

6. Click **Yes** to kill the process indicated, or click **No** to cancel the kill operation.





# Appendix B

Spillman Technologies supplies the following text editors with Flex:

- The built-in text editor in Flex allows you to enter text in most text fields, such as comments fields and narratives fields. This text editor functions similarly to many Windows text editors. For instructions about using the built-in text editor, refer to the online Help.
- MicroEMACS is a UNIX text editor that allows you to enter text in UNIX mail and in text fields in the IBR and NFIRS modules. (These modules currently run in the software's built-in terminal emulation window.)

This appendix describes how to use the MicroEMACS text editor. Your agency may have chosen another UNIX text editor. Use these instructions only if your agency uses MicroEMACS.

For the most part, the function keys work the same in MicroEMACS as they do in the rest of the Flex system. For example, you can read or send mail using the MAIL key and you can run another program using the Run key.

To access the MicroEMACS editor from outside the Flex system (for example, from UNIX's shell prompt) and still be able to use the function keys, enter the following command:

```
wemacs @wemacs.rc name_of_file_to_edit
```

as in:

```
wemacs @wemacs.rc file.old.
```

## Moving and searching through text

The following keys and key combinations enable you to move and search through text.

| Press       | To move the cursor    |
|-------------|-----------------------|
| Right Arrow | Forward one character |
| Left Arrow  | Back one character    |
| Up Arrow    | Up one line           |
| Down Arrow  | Down one line         |

| Press                                                | To move the cursor                                                                                                                                                                                                                                    |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Begin                                                | To the beginning of the current line                                                                                                                                                                                                                  |
| End                                                  | To the end of the current line                                                                                                                                                                                                                        |
| Esc+F                                                | Forward one word                                                                                                                                                                                                                                      |
| Esc+B                                                | Back one word                                                                                                                                                                                                                                         |
| Next                                                 | Forward one screen                                                                                                                                                                                                                                    |
| Prev                                                 | Back one screen                                                                                                                                                                                                                                       |
| Esc+<                                                | To the beginning of the file                                                                                                                                                                                                                          |
| Esc+>                                                | To the end of the file                                                                                                                                                                                                                                |
| Esc+N<br>(at the beginning or middle of a paragraph) | To the end of the paragraph                                                                                                                                                                                                                           |
| Esc+P<br>(at the middle or end of a paragraph)       | To the beginning of the paragraph                                                                                                                                                                                                                     |
| Esc+Right Arrow                                      | To the next page break                                                                                                                                                                                                                                |
| Esc+Left Arrow                                       | To the previous page break                                                                                                                                                                                                                            |
| GOTO                                                 | To the beginning of the specified line<br>When the system prompts <code>Line to GOTO :</code> , type the line number and press Enter.                                                                                                                 |
| Esc+Down Arrow<br>(search-ahead key)                 | Forward to a specific word or character<br>When the system prompts <code>Search [ ] &lt;META&gt; :</code> , type the word or character and press <Esc>. The system performs the search, and the cursor appears to the right of the word or character. |
| Esc+Up Arrow<br>(search-back key)                    | Backward to a specific word or character<br>When the system prompts <code>Search [ ] &lt;META&gt; :</code> , type the word or character and press Esc. The system performs the search, and the cursor appears to the right of the word or character.  |

## Entering text

When you enter the text file, the system is in Insert mode. In Insert mode, the characters you type are inserted in front of the cursor. In overstrike mode, the characters are typed over existing characters.

The following keys let you open and close up space when entering text.

| Press                                 | To                                                       |
|---------------------------------------|----------------------------------------------------------|
| Insert                                | Switch from insert mode to overstrike mode or vice versa |
| Ctrl+J (from the beginning of a line) | Open space for a line above the current line             |
| Ctrl+J (from end of a line)           | Open space for a line below the current line             |
| Ctrl+J (from within a line)           | Move the rest of the line down                           |
| EOL, Ctrl+D (from the end of a line)  | Join the current line and the next line                  |

## ***Deleting text***

The following keys let you delete various amounts of text. Press Recall to undo the last deletion.

| Press               | To delete                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Delete or Backspace | The character before the cursor                                                                                                                                                          |
| Ctrl+D              | The character under the cursor                                                                                                                                                           |
| Esc+D               | The rest of the current word                                                                                                                                                             |
| Esc+Backspace       | The previous word                                                                                                                                                                        |
| EOL                 | The rest of the current line                                                                                                                                                             |
| Esc, Ctrl+W         | The current paragraph                                                                                                                                                                    |
| Esc, Ctrl+O         | A group of blank lines                                                                                                                                                                   |
| Esc+Spacebar        | Ahead from the cursor to another spot<br>After pressing Esc+Spacebar at the beginning of the text you want to delete, use the Right Arrow to mark the text to delete. Then, press Clear. |

## ***Saving text and exiting***

The following keys let you exit the current file or save text or both. Do a safety save occasionally to protect your data in case the system goes down before you exit the file.

### **NOTE**

If the system goes down, you must retype any entries or change made since your last save. So, use the safety save often enough to make you feel comfortable.

If you try to access a text field from one computer, completely exit the record before you try to access that field from another computer. Otherwise, you cannot save any modifications or additions that you make to that field from the second computer.

| Press                                                               | To                                                                                                                    |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Esc then Ctrl+Y                                                     | Safety save (save the file without exiting it)                                                                        |
| Accept (or Esc+Z if the system is not accepting function key input) | Save and exit the file                                                                                                |
| Cancel (or Esc, Ctrl+X)                                             | Exit the file without saving it                                                                                       |
| Run                                                                 | Run another program<br>When you exit the second program, the system returns you to your place in the MicroEMACS file. |

## ***Moving text within a file***

### **Copying and moving text**

1. Press Esc+Spacebar at beginning of the text to be copied.
2. Use an arrow key to move to the end of text to be copied.
3. Press Esc+W to copy the text and place it in buffer.
4. Use the arrow key to move to the place you want to insert the copied text.
5. Click Recall to insert the marked text.

### **Moving text without copying it**

1. Press Esc+Spacebar at the beginning of text to be moved.
2. Use the arrow keys to mark the text to move.
3. Click Clear.

4. Use the Arrow key to move to the place you want to insert the text.
5. Click Recall to insert the marked text.

### Transposing words

Press ESC+, to transpose words. The current word is swapped with the word preceding it.

## ***Moving text to another file***

Follow these steps to move text to another file, with or without first copying the text.

1. Press Esc+Spacebar at beginning of the text to be moved.
2. Use the arrow keys to mark the text to move.
3. To copy and move the text, press Esc+W.  
Or, to move the text without copying it, click Clear.
4. Press Esc+J.

The following prompt appears at the bottom of the screen:

Use buffer[main]:

5. Type a name for the buffer and press Enter. This is not the name of the new file.

The cursor goes to a blank screen.

6. Click Recall to bring in the marked text.
7. Press Esc+."

The Name : prompt appears at the bottom of the screen.

8. Type the new file name and press Enter.

### **NOTE**

To save the file to a different directory, include the path in the file name (for example, /usr/john/warrant.file).

9. Click Accept to save and exit both files.

## Copying text from one text file to another

You can copy data to and from text files that are not part of the Flex system and to and from text fields within the Flex system. Follow the steps outlined below.

### NOTE

The following procedure copies the entire text file in all cases.

1. If you are copying a NFIRS or IBR text field (for example, a narrative), display the record containing the field to be copied.  
If you are copying a text file outside the Flex system, skip to step 4.
2. Click **Mod** to modify the record. With your cursor on the field to be copied, use the Lookup button (Ctrl+E) to go into the text editor. Make any desired modifications to the text.

### NOTE

You must access the editor at the field to be copied, even if you are not modifying the field.

3. Exit the text editor by pressing Accept (Ctrl+X) or Cancel (Ctrl+C).
4. If you are inserting the text into a text field, display the record containing that field. Click **Add** or **Mod**, and position the cursor on the text field to receive the text. Click the Lookup button (Ctrl+E) to go into the text editor.  
If you are inserting the text into a text file that is *not* part of the Flex system, access this text file.
5. Position the cursor where you want the text inserted.
6. Press Esc++. The system prompts:  
  
Insert file
7. If you copied from a text field, type **lasttext** and press Enter. The system inserts into the current text file the contents of the most recently accessed text file.  
If you copied from a text file outside the Flex system, type the name of the file, including the path, and press Enter. The system inserts into the current text file the contents of the file you named.
8. Modify the text as necessary, and exit the text editor.

## Replacing text

You can use a universal replacement, or “global replace,” to correct multiple occurrences of a misspelling or to change any other text that appears several times in a file. You have the option of automatically changing all occurrences of the specified text or of confirming each change before it is made.

### Global replace without confirmation

1. Move to the beginning of the text in which you want to run the global replace. Press **Esc+R**.

The system prompts you with **Replace [x]<META>:**, where **x** is the last word searched for.

2. Type the word or character to search for, and press **Esc**. Or, to search for **x** again, just press **Esc**.

The system prompts you with **[x]<META>:**, where **x** is the last replacement word used.

Type the replacement word or character, and press **Esc**. Or, to use **x** as the replacement text, just press **Esc**.

### Global replace with confirmation

To confirm each replacement before it is made, enter **Esc,Ctrl+R** instead of **Esc+R** in step 1 above. The system stops at each occurrence of the search text and asks whether you want to change it. Respond by typing **y** (for yes) or **n** (for no) without pressing **Enter**.

## Using macros

You can define a macro that is to be executed when you enter **Esc+-**.

1. Press **Esc+(** to set up a macro.
2. Define the macro by typing the keystrokes you want recorded.
3. Press **Esc+)** to finish defining the macro.

Press **Esc+-** when you want the computer to execute the macro.

## Changing to upper or lowercase

Three **Esc** key combinations let you change the capitalization of a single word. You can also change the case of an entire block of text.

### Changing the case of one word

With the cursor at the beginning of the word to change, press the appropriate key combination.

| Press | To                                           |
|-------|----------------------------------------------|
| Esc+C | Capitalize only the first letter of the word |
| Esc+L | Change the entire word to lowercase          |
| Esc+U | Change the entire word to uppercase          |

### Changing the case of a block of text

1. Press Esc, Spacebar at the beginning of the text to change.
2. Use the arrow keys to mark the text to change.
3. To change the text to lowercase, press Esc, Ctrl+].  
Or, to change the text to uppercase, press Esc, Ctrl+U.

## Counting words and lines

1. Press Esc, Spacebar at the beginning of the text to be counted.
2. Use the arrow keys to mark the text to count.
3. Press Esc and then press Ctrl+C.

The system counts the words and lines in the marked text, and displays the count in this format:

```
Words 114 Chars 573 Lines 24 Avg chars/word 5.02
```

The above message means that the marked text contains 114 words, 573 characters, and 24 lines. The average number of characters per word is 5.02.

## Running a spell check

To run a spell check on a file, follow the steps below:

1. Press Esc, then use the Lookup button (Ctrl+E).
2. The screen displays:  

```
User dictionary (<ret> if none):
```
3. You can use the default dictionary or a supplemental dictionary.



Enter the name of the supplemental dictionary, or press Enter to use the default dictionary.

#### NOTE

If you add a word to the speller (using the Add Word or the Upper Case options, explained below), you create a supplemental dictionary that includes the words in the default dictionary and any words you add.

Soon, a message similar to the following appears at the top of the screen.

```

MicroSPELL 2.0 spell scan File# 1/ 1 Word 1/ 8
Suspect word: thief (S)kip (C)hange Word
 (I)gnore (D)efault Replacement
 (A)dd Word (G)lobal Change
 (U)pper Case (Q)uit

Options: Add word as

Suggested Replacements:

 thief <= thrifts thyself
 theft thereof
 theft's therefor
 thefts twelfth

```

The first misspelled word appears after `Suspect word`, and possible replacements may be displayed after `Suggested Replacements`. The most likely replacement is followed by an arrow (`<=`), as in the example above.

Using the Up Arrow and Down Arrow, you can move the arrow (`<=`) back and forth along the list of suggested replacements.

4. You can replace the misspelled word with a suggested word or choose one of the options on the right side of the screen.
  - To use a suggested word, position the arrow next to the suggested word and press Enter.
  - To select an option, type the letter in parentheses, in lowercase. Do not press Enter.

#### NOTE

The system does not recognize an option letter typed in uppercase.

The options perform the following functions:

| Option            | Function                                                                                                                                                                                                                                                                                                         |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (S)kip            | Continues the spell check, leaving the word as is. The spell scan stops on any subsequent occurrences of this word.                                                                                                                                                                                              |
| (I)gnore          | Continues the spell check, leaving the word as is. The spell scan does not stop on subsequent occurrences of this word.                                                                                                                                                                                          |
| (A)dd Word        | Adds the word as it is to a supplemental dictionary. If you entered the name of a supplemental dictionary when you started this spell check, the word is added to this dictionary.                                                                                                                               |
| (U)pper Case      | Works like (A)dd Word but adds the word in upper case to a supplemental dictionary.<br>If you are using the default dictionary, the system prompts you with <code>User dictionary name :</code> . Enter the name of an existing supplemental dictionary, or enter a name not already in use by an existing file. |
| (C)hange Word     | Lets you edit the word. The system displays <code>Replace with :</code> . Enter the replacement word. You must enter a replacement word.                                                                                                                                                                         |
| (D)efault Replace | The same spelling occurred earlier and you used (C)hange Word to replace it. Your replacement appears next to the prompt <code>Default Replacement :</code> . Select (D)efault Replace to replace this occurrence with the default replacement.                                                                  |
| (G)lobal Change   | Use this option to replace all occurrences of this word in the current file. The screen prompts you with <code>Globally Replace with :</code> . Enter the word with which you want to replace all occurrences of the misspelled word. The system changes all occurrences of the misspelled word as you indicate. |
| (Q)uit            | Press <b>q</b> to cancel the spell check.                                                                                                                                                                                                                                                                        |

## Renaming a file

While you are in a file, you can use the rename file command to rename the file. Once you rename a file, you can only access that file under the new name.

1. Press **Esc**+" from within the file to be renamed.

The screen prompts you with `Name :`.

2. Enter the new name for the file.

## Using function keys

Most function keys can also be used in MicroEMACS files, as follows:

| Function Key | Command               | Description                                                         |
|--------------|-----------------------|---------------------------------------------------------------------|
| Accept       | Alt+X<br>or<br>Ctrl+X | Save and exit                                                       |
| Begin        | Ctrl+A                | Go to the beginning of the line                                     |
| Cancel       | Alt+C<br>or<br>Ctrl+C | Exit without saving; Cancel a partially entered command             |
| Clear        | Ctrl+Z                | Delete the marked text                                              |
| End          | Ctrl+G                | Go to the end of the line                                           |
| EOL          | Ctrl+K                | Delete to the end of the line                                       |
| GOTO         | Ctrl+O                | Move to the specified line                                          |
| Help         | Ctrl+W                | Display MicroEMACS help information                                 |
| Insert       | Insert                | Switch between the Ins (insert) and OVR (overstrike) key-in modes   |
| Lookup       | Ctrl+E                | Access MicroEMACS<br>or<br>Signal the editor to use the full screen |
| Mail         | Ctrl+Y                | Read or send mail                                                   |
| Next         | Ctrl+N                | Go to the next page                                                 |
| Prev         | Ctrl+P                | Go to the previous page                                             |
| Print        | Ctrl+J                | Print the text file                                                 |
| Recall       | Ctrl+U                | Undo the last deletion                                              |
| Redraw       | Ctrl+L                | Redraw the screen                                                   |
| Run          | Ctrl+V                | Temporarily switch over and run another program                     |
| Time         | Ctrl+T                | Insert the current time and date                                    |

## Reformatting paragraphs

Using the Esc+Q command, you can reformat a paragraph, aligning each line with the current right margin. A paragraph is considered a body of text delineated by blank lines at the top and the bottom.

## **Margins**

You can temporarily change the right margin, but not the left. The default right margin is at column 72. To change the right margin:

1. Press Esc, then type the column number at which to reset the right margin (for example, Esc+60).

The bottom of the text window displays something like Arg: 60.

2. Press Esc, followed by Ctrl+A.

The bottom of the text window displays the current right margin (as in [Fill column is 60]).

The new right margin remains in effect until you exit the file. It will be used for all text that you enter before leaving the file, as well as for all paragraphs that you reformat before leaving. The changes remain after you leave the file, but MicroEMACS does not save the right margin command.

## **Centering lines**

You can center the current line by pressing Esc and then Time. MicroEMACS centers the line of text by entering blank spaces at the beginning.

# ***Appendix C***

---

These instructions describe how to use the vi text editor. Your agency might use vi as your UNIX editor instead of the MicroEMACS editor.

## VI Terms

Use of the vi editor requires familiarity with the following terms.

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Escape mode   | The mode from which you can enter vi editor commands to insert, replace, delete, and save text. You are automatically in Escape mode when you enter a file, and you can use the arrow keys to move through the text. If you use an “entering text” command (i, a, A, o, O), which takes you from Escape mode into Insert mode, press ESC to return to Escape mode.                                                                                                                                                                                                                                        |
| Insert mode   | The mode from which you can type text on the screen. To get into Insert mode and enter text into a file, use one of the “entering text” commands: i, a, A, o, O. As in Escape mode, you use the arrow keys to move through the file.                                                                                                                                                                                                                                                                                                                                                                      |
| <b>c</b>      | You will see this symbol in several of the commands explained below. When you type in the command, type in the place of <b>c</b> any single character or space that you wish.                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>string</b> | When typing commands, type any combination of characters and spaces in place of <b>string</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| current       | Refers to the line or character that the cursor is on.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>(n)</b>    | Some commands start with this notation. It means that you can type a number in place of <b>(n)</b> to give the command additional information. For example, with the dw command, you can type just <b>dw</b> to delete the current word or you can specify the number of words to delete. Typing <b>5dw</b> , for example, deletes the next five words.<br><br>The parentheses indicate that <b>n</b> is optional. Do not type the parentheses when entering the command. See the particular command description in this appendix for an explanation of what the command does when you include <b>n</b> . |

### NOTE

Be sure you are in Escape mode before using any vi editor command. Press ESC to check. If a beep sounds, you are in Escape mode.

When entering text into a file, you must press Enter at the end of every line.

## VI Commands

The following sections contain basic vi commands. These sections do not include all vi commands.

### Moving through text

The tildes (~) at the end of a file indicate that there are no spaces or characters in the file past that point.

You can use the arrow keys in the Insert or Escape mode. You must be in Escape mode to execute the remainder of the commands listed below.

| Enter            | To move the cursor                                                                                                                                                                                                        |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>l</b>         | Forward one character                                                                                                                                                                                                     |
| <b>h</b>         | Backward one character                                                                                                                                                                                                    |
| <b>k</b>         | Up one line                                                                                                                                                                                                               |
| <b>j</b>         | Down one line                                                                                                                                                                                                             |
| <b>0</b> (zero)  | To the beginning of the current line                                                                                                                                                                                      |
| <b>\$</b>        | To the last character in the current line                                                                                                                                                                                 |
| <b>(n)</b> Enter | To the beginning of the next line or forward the specified number of lines                                                                                                                                                |
| <b>(n)-</b>      | To the beginning of the previous line or backward the specified number of lines                                                                                                                                           |
| <b>(n)w</b>      | Forward one word or forward the specified number of words                                                                                                                                                                 |
| <b>(n)b</b>      | (From the beginning of a word) to the beginning of the previous word or the beginning of the word <b>n</b> words back<br>If you enter <b>b</b> from the middle of a word, the cursor moves to the beginning of that word. |
| <b>(n)e</b>      | (From the end of a word) to the end of the next word or the end of the word <b>n</b> words ahead<br>If you enter <b>e</b> from the middle of a word, the cursor moves to the end of that word.                            |
| Ctrl+B           | Back one screen in the file<br>You must use an uppercase <b>B</b> in this command.                                                                                                                                        |
| Ctrl+F           | Forward one screen in the file<br>You must use an uppercase <b>F</b> in this command.                                                                                                                                     |

| Enter | To move the cursor                                                       |
|-------|--------------------------------------------------------------------------|
| G     | To the last character in the file<br>You must use an uppercase <b>G</b>  |
| 1G    | To the first character in the file<br>You must use an uppercase <b>G</b> |
| (n)G  | To line <b>n</b><br>You must use an uppercase <b>G</b>                   |

### Scrolling

Press Ctrl+U or Ctrl+D in Escape mode to scroll up or down through the file. By default, the file is scrolled 11 lines at a time.

You can change the number of lines scrolled by typing a number before pressing Ctrl+U or Ctrl+D. For example, the command **5**, Ctrl+U causes the screen to immediately scroll up five lines and then to scroll up five lines every time you subsequently press Ctrl+D. The new value stays in effect until you exit the file or enter a new scroll command.

You must be in Escape mode to enter any scroll command.

### Switching to Insert mode

Before you can begin typing characters, you must exit from Escape mode into Insert mode. Use one of the following commands, depending on where you want to begin entering text.

#### NOTE

After entering (inserting) text, you must press ESC before you can use any vi commands (other than the arrows).

| Press                         | To enter Insert mode and enter text |
|-------------------------------|-------------------------------------|
| <b>i</b>                      | Left of the cursor.                 |
| <b>a</b>                      | Right of the cursor.                |
| <b>A</b>                      | At the end of the current line.     |
| <b>O</b> (uppercase letter O) | At the open line above.             |
| <b>o</b> (lowercase letter o) | At the open line below.             |



## Modifying text

The following commands let you change text. You must be in the Escape mode to enter these commands.

| Enter                             | To                                                                                                                                                                                                                                                                                                                |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>rc</b>                         | Replace the current character with the new character specified by <b>c</b><br>For example, the command <b>rv</b> replaces the current character with the letter v.                                                                                                                                                |
| <b>R string ESC</b>               | Replace text by typing over it with the new text ( <b>string</b> )<br>Do not type over any returns at the ends of lines. For example, the command <b>R1997&lt;Esc&gt;</b> replaces text with the characters 1997.                                                                                                 |
| <b>J</b> (from the end of a line) | Join the current line and the next line                                                                                                                                                                                                                                                                           |
| <b>(n).</b>                       | Repeat the last command or entry once or <b>n</b> times<br>For example, if you just deleted a line, this command deletes the current line.                                                                                                                                                                        |
| <b>(n)s string Enter</b>          | Substitute the new text ( <b>string</b> ) for the current character or the specified number of characters                                                                                                                                                                                                         |
| <b>C string Enter</b>             | Change the rest of the line to the new text specified by <b>string</b>                                                                                                                                                                                                                                            |
| <b>(n)cc string Enter</b>         | Change the entire line or the specified number of lines to the new text specified by <b>string</b>                                                                                                                                                                                                                |
| <b>cw string ESC\</b>             | Change the current word to the new word or words specified by <b>string</b><br>With the cursor on the first letter of the word you want to change, type <b>cw</b> . A dollar sign (\$) appears at the end of the word. Type the new word or words, then press the ESC key so you can move through the text again. |

## Deleting text

The following commands let you delete text. You must be in Escape mode to enter these commands.

| Enter        | To delete                                                   |
|--------------|-------------------------------------------------------------|
| <b>(n)x</b>  | The current character or the specified number of characters |
| <b>(n)dw</b> | The current word or the specified number of words           |
| <b>(n)dd</b> | The current line or the specified number of lines           |

| Enter        | To delete                                                                                                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>D</b>     | To the end of the line                                                                                                                                           |
| <b>d)</b>    | To the end of the sentence                                                                                                                                       |
| <b>(n)d}</b> | To the end of the paragraph or the specified number of paragraphs<br>If the cursor is on a blank line when you enter the command, the next paragraph is deleted. |

### ***Undoing the last command***

Three commands let you undo changes. You must be in Escape mode to enter these commands.

| Enter      | To undo                              |
|------------|--------------------------------------|
| <b>u</b>   | The last command entered             |
| <b>U</b>   | Changes made to the current line     |
| <b>:e!</b> | All changes made since the last save |

### ***Saving text and exiting***

The following commands let you exit the current file or save text or both. Do a safety save occasionally to protect your data in case the system goes down before you exit the file. You must be in Escape mode to enter these commands.

#### **NOTE**

If the system goes down, you must retype any entries or change made since your last save. So, use the safety save often enough to make you feel comfortable.

If you try to access a text field from one computer, completely exit the record before you try to access that field from another computer. Otherwise, you cannot save any modifications or additions that you make to that field from the second computer.

| Enter           | To                                             |
|-----------------|------------------------------------------------|
| <b>:w</b> Enter | Safety save (save the file without exiting it) |
| <b>zz</b> Enter | Save and exit the file                         |

| Enter            | To                           |
|------------------|------------------------------|
| <b>:wq</b> Enter | Save and exit the file       |
| <b>:q!</b> Enter | Exit without saving the file |

## Redrawing the screen

From time to time, garbage (random characters) or messages may appear on the screen from a background report you started recently, from system glitches, from static electricity, or from any other source. To clear the screen of the unwanted characters, type Ctrl+L.

## Finding text

The following commands let you find a character or string of characters. You must be in Escape mode to enter these commands.

| Enter                 | To                                                               |
|-----------------------|------------------------------------------------------------------|
| <b>f c</b>            | Search the current line for the specified character ( <b>c</b> ) |
| <b>/string</b> Enter  | Search forward for the text specified by <b>string</b>           |
| <b>? string</b> Enter | Search backward for the text specified by <b>string</b>          |
| <b>n</b>              | Repeat the last forward or backward search                       |

## Copying and placing text

The following commands copy text, without deleting it, so that you can place it somewhere else in the file. You must be in Escape mode to enter these commands.

| Enter         | To copy                                                                 |
|---------------|-------------------------------------------------------------------------|
| <b>(n)yw</b>  | The current word or the specified number of words                       |
| <b>(n)y\$</b> | From the cursor to the end of the line or the specified number of lines |
| <b>(n)yy</b>  | The entire line or the specified number of lines                        |

After copying the text, do not perform any other commands—besides moving or searching—before placing the text in the new location. Move the cursor to where you want to put the copied text. Then, type **p** (to place the copied text after the current character) or **P** (to place the copied text before the current character).

## Moving text

To remove text from its current location and place it somewhere else in the file, use one of the commands in [“Deleting text” on page 497](#) to delete the text. Move the cursor to where you want to put the text. Then, type **p** (to place the copied text after the current character) or **P** (to place the copied text before the current character).

## Replacing text

You can use a universal replacement, or “global replace,” to correct multiple occurrences of a misspelling or to change any other text that appears several times in a file.

The global replace command, which follows, replaces all occurrences of **string** throughout the file:

```
g/string/s//newstring/g
```

For example, to replace “Smith” with “Smythe” throughout the file, enter the command:

```
g/Smith/s//Smythe/g
```

You do not have to be at the top of the file when you enter the global replace command.

## Printing text

Periodically, you will need to print all or part of a text file. To do so, follow the steps below:

1. Press ESC. Then, type **:w** and press Enter to save the document with all of its changes.

2. Type one of the following Move commands to indicate the amount of text to print and press Enter. The Move command does not appear on your screen.

| Enter      | To                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>!G</b>  | Mark the text from the cursor to the end of the file for printing                                                                                                                                                                                                                                                                                                                                                                          |
| <b>!L</b>  | Mark the text from the cursor to the bottom of the screen for printing                                                                                                                                                                                                                                                                                                                                                                     |
| <b>!}</b>  | Mark the text from the cursor to the next blank line (the end of the paragraph) for printing                                                                                                                                                                                                                                                                                                                                               |
| <b>!'a</b> | Indicate that you will specify a block of text for printing<br>Press ESC and place the cursor anywhere on the first line of the text to print. Type <b>ma</b> but do not press Enter. Move to any location on the last line of text you want to print. Type <b>: 'a, .w!printcommand</b> and press Enter. <b>Print command</b> is your system's print command, such as <b>lp</b> (lowercase L and p) or <b>print</b> . Continue at step 4. |

3. A **!** prompt appears at the bottom of the screen. Depending on your system, type **lp** (lowercase L and p) or **print**. Then, press Enter.
4. The system prints the indicated text on the assigned printer and temporarily deletes the text from your screen. Before pressing any other keys, press **u** to bring the text back.

This prints the block without affecting the file in any way. You can exit the file without saving it by entering **ESC:q!**.

